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In the

Supreme Court of the United States

BOMBARDIER, INC. and BOMBARDIER MOTOR CORPORATION OF AMERICA,

Petitioners,

v.

SIMMONS, INC.,

Respondent.

On Petition for a Writ of Certiorari to the United States Court of Appeals for the Federal Circuit

PETITION FOR A WRIT OF CERTIORARI

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QUESTIONS PRESENTED

Every patent case hinges on claim construction and this Court has consistently held that when a patentee modifies claim language during prosecution of the application before the Patent and Trademark Office, he relinquishes the right to exclude others from practicing that which was surrendered.

The United States Court of Appeals for the Federal Circuit disagrees. That Court now requires a claim amendment (or an argument presented to obtain allowance of a claim) to be unambiguous and unmistakable before any subject matter is deemed to be surrendered. Under the Federal Circuit's recent standard, the dictionary defines the scope of each claim term or phrase and can only be altered if unambiguous or unmistakable disclaimers are presented during prosecution.

This new and heavy presumption disrupts this Court's long standing balance between an ordinary definition of a claim term and the modification of that definition through negotiation with the Patent Office and the patent applicant. It also eviscerates the public notice function of those negotiations. The questions presented, therefore, are:

1. Is prosecution history irrelevant to claim construction unless it unambiguously and unmistakably modifies a dictionary definition of a claim term?

2. When construing patent claims, should the standard for assessing the prosecution history be higher than the standard which is applied to those same arguments and amendments when assessing prosecution history under the doctrine of equivalents?

CORPORATE DISCLOSURE STATEMENT

In December of 2003, petitioner, Bombardier Incorporated, sold the division that manufactures the accused infringing product. The divested portion is now known as Bombardier Recreational Products Inc. and it is wholly owned by J.A. Bombardier Incorporated (hereinafter "JAB Incorporated"). JAB Incorporated is owned by funds affiliated with Bain Capital LLC, Caisse de dépôt et placement du québec, and Beaudier Incorporated, with Bombardier Inc. having a minority preferred stock interest in JAB Incorporated. Petitioner, Bombardier Recreational Products Incorporated is the parent corporation of petitioner Bombardier Motor Corporation of America. Pursuant to Supreme Court Rule 29.6, Bombardier Inc. is a publicly-held Canadian corporation and there otherwise are no subsidiaries or affiliates of Bombardier Incorporated, Bombardier Recreational Products Incorporated, or Bombardier Motor Corporation of America that have issued shares to the public.

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IN THE

SUPREME COURT OF THE UNITED STATES

BOMBARDIER INC. and BOMBARDIER MOTOR CORPORATION OF AMERICA, *Petitioners*,

v.

SIMMONS, INC., *Respondent.*

PETITION FOR WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

Bombardier Inc. and Bombardier Motor Corporation of America, the Petitioners, respectfully petition for a writ of *certiorari* to review the judgment of the United States Court of Appeals for the Federal Circuit.

OPINIONS BELOW

The September 16, 2002 Opinion and Order of the United States District Court for the District of Utah is reported at *Simmons, Inc. v. Bombardier Inc.*, 2002 WL 31956460 (D. Utah 2002) and is reproduced at App. 9a. The July 29, 2003 Opinion of the Federal Circuit Court of Appeals on the merits is unreported. App. 1a. The September 24, 2003 Order of the Court of Appeals of the Federal Circuit denying petitioners' timely request for rehearing and declining petitioners'

suggestion of rehearing *en banc* remains unreported. App. 43a.

JURISDICTION

The United States Court of Appeals for the Federal Circuit entered its judgment on July 29, 2003. The jurisdiction of the Federal Circuit was invoked pursuant to 28 U.S.C. § 1295(a)(1). The jurisdiction of this Court is invoked pursuant to 28 U.S.C. § 1254(a) and Supreme Court Rule 10(c) the United States Court of Appeals for the Federal Circuit has decided an important federal question in conflict with every relevant decision of this Court.

RELEVANT PROVISIONS

Article 1, section 8, clause 8 of the Constitution provides:

"Congress shall have the power ... to promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their Respective Writings and Discoveries."

Act of March 3, 1837, Ch. 45 § 7, 5 Stat. 191:

> "*And be it further enacted*, That, whenever any patentee shall have, through inadvertence, accident, or mistake, made his specification of claim too broad, claiming more than that of which he was the original or first inventor, some material and substantial part of the thing patented being truly and justly his own, any such patentee, his

administrators, executors, and assigns, whether of the whole or of a sectional interest therein, may make disclaimer of such parts of the thing patented as the disclaimant shall not claim to hold by virtue of the patent or assignment, stating therein the extent of his interest in such patent; which disclaimer shall be in writing, attested by one or more witnesses, and recorded in the Patent Office, on payment by the person disclaiming, in manner as other patent duties are required by law to be paid, of the sum of ten dollars. And such disclaimer shall thereafter be taken and considered as part of the original specification, to the extent of the interest which shall be possessed in the patent or right secured thereby, by the disclaimant, and by those claiming by or under him subsequent to the record thereof. But no such disclaimer shall affect any action pending at the time of its being filed, except so far as may relate to the question of unreasonable neglect or delay in filing the same."

Act of July 8, 1870, c. 230 § 54, 16 Stat. 206:

"*And be it further enacted*, That whenever, through inadvertence, accident, or mistake, and without any fraudulent or deceptive intention, a patentee has claimed more than that of which he was the original or first inventor

or discoverer, his patent shall be valid for all that part which is truly and justly his own, provided the same is a material or substantial part of the thing patented; and any such patentee, his heirs or assigns, whether of the whole or any sectional interest therein, may, on payment of the duty required by law, make disclaimer of such parts of the thing patented as he shall not choose to claim or to hold by virtue of the patent or assignment, stating therein the extent of his interest in such patent; said disclaimer shall be in writing, attested by one or more witnesses, and recorded in the patent office, and it shall thereafter be considered as part of the original specification to the extent of the interest possessed by the claimant and by those claiming under him after the record thereof. But no such disclaimer shall affect any action pending at the time of its being filed, except so far as may relate to the question of unreasonable neglect or delay in filing it."

35 U.S.C. § 271(a) provides:

"Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent."

35 U.S.C. § 282, ¶ 1 provides:

"A patent shall be presumed valid. Each claim of a patent (whether in independent, dependent, or multiple dependent form) shall be presumed valid independently of the validity of other claims; dependent or multiple dependent claims shall be presumed valid even though dependent upon an invalid claim. Notwithstanding the preceding sentence, if a claim to a composition of matter is held invalid and that claim was the basis of a determination of nonobviousness under section 103(b)(1), the process shall no longer be considered nonobvious solely on the basis of section 103(b)(1). The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity."

35 U.S.C. § 253 provides:

"Whenever, without any deceptive intention, a claim of a patent is invalid the remaining claims shall not thereby be rendered invalid. A patentee, whether of the whole or any sectional interest therein, may, on payment of the fee required by law, make disclaimer of any complete claim, stating therein the extent of his interest in such patent. Such disclaimer shall be in writing and recorded in the Patent and Trademark Office, and it shall thereafter be

considered as part of the original patent to the extent of the interest possessed by the disclaimant and by those claiming under him."

STATEMENT OF THE CASE

A United States patent issues at the end of an *ex parte* negotiation with the United States Patent and Trademark Office. An applicant "prosecutes" a patent application with a patent examiner who decides the breadth of the government-sanctioned, exclusive right granted to that applicant. The negotiation is memorialized in the Patent Office file called the prosecution history or filewrapper. The patent itself has a specification, which typically includes figures, and claims which have elements or limitations. The patent and its filewrapper become publicly available, inviting competitors to review them to determine the scope of the government-granted patent right. The public notice function of the filewrapper in determining scope of exclusion or claim protection cannot be understated.

To determine infringement, a Court first construes the patent's claim terms as a matter of law.[1] Under the current Federal Circuit rubric, a dictionary definition is chosen by the Court for each disputed claim term.[2] The specification is then consulted to see if

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[1] *Markman v. Westview Instruments Inc.*, 517 U.S. 370, 372 (1996) (J. Souter for unanimous court) ("We hold that the construction of a patent, including terms of art within its claim, is exclusively within the province of the court.").

[2] *Texas Digital Sys. v. Telegenix Inc.*, 308 F.3d 1193, 1202-03 (Fed. Cir. 2002); *Anchor Wall Systems, Inc. v. Rockwood Retaining Walls, Inc.*, 340 F.3d 1298, 1307-11 (Fed. Cir. 2003).

the applicant acted as "his own lexicographer."[3] The filewrapper is then consulted and, according to the Federal Circuit, can be employed to modify the dictionary definition only if it includes "an expression of manifest exclusion or restriction" or a "clear and unmistakable statement[] of disavowal" that modifies or alters the dictionary definition of the claim terms.[4] The application of the arguments or amendments in the filewrapper (or lack thereof) to define a claim term during claim construction is sometimes referred to as prosecution disclaimer, and that is the term that will be used in this brief.[5] This is all a matter of law.

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[3] *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995); App. 5a-6a.

[4] App. 6a-7a; *see also Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003); *Cordis Corp. v. Medtronic AVE, Inc.*, 339 F.3d 1352, 1359 (Fed. Cir. 2003).

[5] *Omega Engineering*, 334 F.3d at 1323 ("The doctrine of prosecution disclaimer is well established in Supreme Court precedent, precluding patentees from recapturing through claim interpretation specific meanings disclaimed during prosecution.") (citing *Schriber-Schroth Co. v. Cleveland Trust Co.*, 311 U.S. 211, 220-21, 61 S.Ct. 235, 85 L.Ed. 132 (1940) ("It is a rule of patent construction consistently observed that a claim in a patent as allowed must be read and interpreted with reference to claims that have been cancelled or rejected, and the claims allowed cannot by construction be read to cover what was thus eliminated from the patent."); *Crawford v. Heysinger*, 123 U.S. 589, 602-04 (1887); *Goodyear Dental Vulcanite Co. v. Davis*, 102 U.S. 222, 227 (1880); *cf. Graham v. John Deere Co.*, 383 U.S. 1, 33 (1966) (ruling, in addressing the invalidity of the patents in suit, that "claims that have been narrowed in order to obtain the issuance of a patent by distinguishing the prior art cannot be sustained to cover that which was previously by limitation eliminated from the patent")).

A factfinder then compares the construed claims to the accused product to determine infringement.[6] If each and every claim term is found in the accused product, then the product literally infringes the claim. If not, the factfinder examines whether there is an "insubstantial difference" between the claim term and the applicable portion of the accused product.[7] This is called a "doctrine of equivalents" analysis and, if infringement is found, it is considered non-literal infringement. It is well understood that what can be considered to be an equivalent to a claim term can be limited by the prosecution history estoppel.[8] This kind of estoppel can be based upon arguments made to the Patent Office (argument estoppel) or amendments to the claims (amendment estoppel). In either case, once made, the patentee may not reclaim or recapture that which was abandoned during the negotiations with the Patent Office.[9]

As will be shown below in a brief historical retrospective of this Court's decisions, prosecution history has played a significant role in claim construction, especially when assessing prosecution disclaimer.

What Is Sought

The role of prosecution history in prosecution disclaimer is straightforward. For many decades, a

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[6] *Markman*, 517 U.S. at 384.

[7] *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*, 520 U.S. 17, 21 (1997) (J. Thomas).

[8] *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*, 535 U.S. 722 (2002).

[9] *Festo Corp.*, 535 U.S. at 734.

claim term's ordinary meaning was tempered and balanced by arguments and amendments in the filewrapper without any threshold standard. This balance has been disrupted by the Federal Circuit's implementation of a threshold standard which dismisses the filewrapper arguments and amendments. This Petition asks the Court to review its own case law and recognize this imbalance, and then to correct it by holding that a reasonable inference should be used when applying arguments and amendments from a filewrapper to claim construction.

Facts Material to the Questions Presented

Mr. Simmons filed a patent application for a two-keeled snowmobile ski, including the claim term "bottom." App. 77a-82a.

He was awarded U.S. Patent No. 5,836,594 on November 17, 1998. App. 45a. This patent is based upon U.S. patent application serial number 09/213,950 which claims priority to U.S. patent application serial number 09/988,281 filed on December 9, 1992, which was abandoned.[10] App. 45a and 76a.

The invention involves a snowmobile ski with a base having a bottom and attached to the base are two downwardly extending side portions (which are also mentioned in the original claims). These two downwardly extending side portions form keels that travel through the snow. The Patent Office repeatedly rejected Simmons' claims based upon U.S. Patent No.

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[10] United States patent application serial number 09/988,281 disclosed three separate snowmobile ski embodiments. App. 73a.

3,817,544 to Labelle, stating that "Labelle teaches the old and well-known construction of a snowmobile ski having a (central) concave about the longitudinal extent" of its bottom. App. 93a-94a; 66a-68a, Fig. 5; 74a-75a; 83a-86a; 99a-100a; and 103a-104a. Simmons repeatedly distinguished his claims from Labelle. In so doing, he repeatedly emphasized that Labelle's pronounced concave bottom removed Labelle as prior art because his ski encompassed a bottom with flat middle and flat rear portions. App. 87a-88a; 89a-90a; 95a-96a; 97a; and 98a. He repeatedly and expressly argued that the flat middle and rear bottom of the ski was a novel feature, App. 96a, and that this limitation "should ... be incorporated into claim 16 by the requisite consideration of the specification in the interpretation of the claims ...." App. 96a and 97a and 98a. In the face of the Patent Office's steadfast refusal to concede, Simmons amended the original claim term "bottom" to "bottom for moving over snow."[11] After amending the claims to include the term "bottom for moving over snow," and two telephone interviews between Mr. Simmons' patent attorney and the Patent Examiner, the application was allowed. App. 101a-102a; 106a; and 108a.

Nearly five years later, in an order denying a preliminary injunction and granting summary judgment of non-infringement, the Utah District Court held that "bottom for moving over snow" "must be

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[11] In the original claims of the '950 application, the term "bottom" was used to refer to the bottom of the middle and rear portion of the ski. When Simmons canceled the original claims and substituted a new set of claims he used the term "bottom for moving over snow."

construed to mean a bottom that is flat in the middle and rear portions," because that is "consistent with the prosecution history." App. 23a, ¶ 16. "Having distinguished its invention from Labelle on the grounds that Labelle has a concave bottom, Simmons cannot be allowed to recapture those same concave bottoms that it previously surrendered." App. 24a, ¶ 23. On appeal, however, the Federal Circuit ignored the totality of the claimed term, ignored the specification, ignored the filewrapper, opened the dictionary to decide that "bottom" means "underside," and held that "bottom for moving over snow" means "underside for moving over snow." App. 7a.

This unbalanced claim construction, which is based solely on an unmodified dictionary definition of a single word, overturned a finding of non-infringement in spite of the District Court's factual finding that the Bombardier accused infringing product was substantially the same as Labelle's prior art ski. App. 25a, ¶ 26. This is exactly the disruption in balance that is in the process of affecting numerous other accused infringers like the petitioner, in spite of this Court's wealth of case law and guidance on prosecution disclaimer.[12]

The only issue in this case is the construction of the single claim term "bottom for moving over snow." As this Court held in *Markman*, claim construction is purely a matter of law.[13] It would be difficult to find or

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[12] *Omega Eng'g Inc.*, 334 F.3d at 1324; *Cordis Corp.*, 339 F.3d at 1359-1362; *Anchor Wall*, 340 F.3d at 1309-10.

[13] *Markman*, 517 U.S. at 372.

permit a less pure opportunity to connect claim construction.

At least one other Federal Circuit case with this same issue is presently petitioning for *certiorari*. *Accuscan Inc. v. Xerox Corp.*, filed a petition for writ of *certiorari* on December 17, 2003, based upon a September 17, 2003 Opinion of the Court of Appeals of the Federal Circuit.

REASONS FOR GRANTING THE WRIT

Question 1. Is prosecution history irrelevant to claim construction unless it unambiguously and unmistakably modifies a dictionary definition of a claim term?

This Court's long and venerable precedent supports the conclusion that prosecution history plays a substantial role both in claim construction and in the doctrine of equivalents. As this Court's history makes clear, amendments and arguments that reasonably bear on the interpretation of a claim must be construed. If amendments and arguments are considered only when they unambiguously and unmistakably modify a claim term, as the Federal Circuit posits, the public notice function of patents and their associated file histories is affectively rendered valueless.

This Court has repeatedly held that when an original claim is amended or even argued about, the scope of the claim is affected. What is tellingly absent from these many cases is a clearly-defined threshold standard, other than reasonableness that this Court applies before filewrapper arguments and/or amendments are allowed to modify claim construction

and its construction under the doctrine of equivalents analysis. There is no demarcation between either analysis and, in fact, it is difficult to tell where this Court stops its literal infringement analysis and where it starts a non-literal one. The reason for this is as simple as it is logical. There is no standard other than reasonableness used in this Court's prosecution disclaimer cases.

What is also compelling in these cases is that the analysis of a filewrapper's applicability to a claim's literal construction and the doctrine of equivalents is identical. With no difference in the analyses, there is no surprise that the cases treat both the same. With this understanding, we turn to a brief historical retrospective of this Court's most pertinent decisions where it will be shown that the statutory disclaimer of claims to avoid invalidity will evolve to the practice of amending claims, and all the while, this Court will apply the same analysis and same standard of reasonableness.

Since 1880, Though this Court Has Reviewed File Wrappers and Applied Prosecution Disclaimer Many Times, It Has Never Sanctioned the Federal Circuit's New "Manifest Exclusion" Standard

From 1837 until the 1952 Patent Act, disclaimers were used as the primary tool to amend or correct patent claims, whether in whole or in part.[14] During this timeframe, disclaimer statutes were adopted to avoid a common law rule that if one claim was invalid,

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[14] *Act of March 3, 1837*, Ch.45, 5 Stat. 191, *see also Act of July 8, 1870*, c. 230 § 54, 16 Stat. 206; 35 U.S.C. § 253.

the whole patent was invalid.[15] The language of the disclaimer statute stated that, when "through inadvertence, accident or mistake ... a patentee has claimed more than that of which he was the ... inventor, his patent shall be valid for only the part which is truly and justly his own," provided that he or his assigns "make disclaimer of such parts of the thing patented as he shall not choose to claim."[16] The effect of disclaiming a claim or a portion of a claim was to concede that the disclaimed subject matter was not something that the inventor had invented. In its precedent, the Supreme Court has recognized this, adopted it, and applied the same logic and analysis in evaluating the prosecution history to determine the claim's scope – that a "disclaimer" concedes an abandonment of rights.

In 1952, Congress enacted 35 U.S.C. § 282 which ended the need for disclaimers because patent claims were made severable.[17] Under the modern Patent Act, each claim stands on its own. The current vestige of disclaiming 35 U.S.C. § 285, can be found in the

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[15] *Altoona Publix Theaters, Inc. v. American Tri-Ergon Corp.*, 294 U.S. 477, 490 n.2 (1935), *reh'g. denied*, 294 U.S. 734 (1935).

[16] *Id.*

[17] 35 U.S.C. § 282, ¶ 1 ("Each claim of a patent (whether in independent, dependent, or multiple dependent form) shall be presumed valid independently of the validity of other claims; dependent or multiple dependent claims shall be presumed valid even though dependent upon an invalid claim. Notwithstanding the preceding sentence, if a claim to a composition of matter is held invalid and that claim was the basis of a determination of nonobviousness under section 103(b)(1), the process shall no longer be considered nonobvious solely on the basis of section 103(b)(1). The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity.").

statutory chapter entitled "Amendment and Correction of Patents." And, even today, "a statutory disclaimer under 35 U.S.C. § 253 has the effect of canceling the claims from the patent and the patent is viewed as though the disclaimed claims had never existed in the patent."[18] Thus, disclaiming even today concedes an abandonment of rights.

In the 1879 case of *Leggett*, an applicant filed for a reissue of an existing patent and included claims that were previously "disclaimed."[19] The Court opined that where an applicant "disclaims a particular invention, or acquiesces in the rejection of a claim ...," the ensuing patent cannot cover that which was foregone.[20]

In 1880 in the case of *Goodyear Dental*, stating that "it is reasonable to hold that such a [patent] construction may be confirmed by what the patentee said when he was making his application," this Court relied on filewrapper statements by an applicant to determine how they affected the scope of the patent.[21] Noting that "[t]he understanding of a party to a contract has always been regarded as of some importance in its interpretation," this Court found that

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[18] *Guinn v. Kopf*, 96 F.3d 1419, 1422 (Fed. Cir. 1996).

[19] *Leggett v. Avery*, 101 U.S. 256, 259 (1879); see also *Union Metallic Cartridge Co. v. U.S. Cartridge Co.*, 112 U.S. 624, 642 (1884) (In connection with a reissue, "[a] disclaimer can be made only when something has been claimed of which the patentee was not the original or first inventor, and when it is intended to limit a claim in respect to the thing so not originally or first invented.").

[20] *Leggett*, 101 U.S. at 259.

[21] *Goodyear Dental Vulcanite Co. v. Davis*, 102 U.S. 222, 227 (1880).

there was no literal or non-literal infringement for a claim construction which was based upon arguments and amendments in the filewrapper.[22] As with all of these cases, no threshold standard was applied by this Court before reviewing the filewrapper.

In 1885, in the *Sargent* case, this Court held that "limitations and provisos, imposed by the inventor, especially such as were introduced into an application after it had been persistently rejected, must be strictly construed against the inventor and in favor of the public, and looked upon as in the nature of disclaimers."[23] The Court, recognizing the burden that should rightfully be placed upon the drafter, reasoned that it is the patentee's "province to make his own claim, and his privilege to restrict it."[24]

In 1886, this Court held in *Shepard* that "[w]here an applicant for a patent to cover a new combination is compelled by the rejection of his application by the patent-office to narrow his claim by the introduction of a new element, he cannot after the issue of the patent broaden his claim by dropping the element which he

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[22] *Goodyear*, 102 U.S. at 227 and 228 ("thus the patent was granted... In view of this there can be no doubt of what Cummings understood he had patented, and that both he and the commissioner regarded the patent to be for a manufacture made exclusively of vulcanites by the detailed process. We think this, to some extent, at least, tends to confirm the conclusions at which we have arrived in interpreting the patent by its own language.")

[23] *Sargent v. Hall Safe & Lock Co.*, 114 U.S. 63, 86 (1885).

[24] *Id.*; *Fay v. Cordesman*, 109 U.S. 408, 421 (1883); *see also Water-Meter Co. v. Desper*, 101 U.S. 332, 337 (1879); *Gage v. Herring*, 107 U.S. 640, 648 (1883).

was compelled to include in order to secure his patent."[25] When applied to the facts, this Court held that a patentee may not "enlarge her patent by argument so as to cover elements not falling within its terms, and which she had explicitly abandoned."[26] As stated slightly differently in another case from this Court later in 1886, the patentee "is not at liberty now to insist upon a construction of his patent which will include what he was expressly required to abandon and disavow as a condition of the grant."[27]

In 1890, in *Dobson*, this Court held that "not appealing the rejection of a claim, withdrawing claims by amendment, or accepting "a patent containing limitations imposed by the Patent Office, which narrow the scope of the invention as at first described and claimed, are instances of [intentional] omissions" by a patentee and cannot be recaptured for they are relinquished rights.[28]

In 1894, this Court decided *Morgan Envelope* and stated the following:

> But, the patentee having once presented his claim in that form, and the patent

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[25] *Shepard v. Carrigan*, 116 U.S. 593, 597 (1886) (citing *Leggett*, 101 U.S. 256; *Goodyear*, 102 U.S. 222-228; *Fay*, 109 U.S. 408; *Mahn v. Harwood*, 112 U.S. 354, 359 (1884); *Union Metallic*, 112 U.S. at 644; *Sargent*, 114 U.S. 63).

[26] *Id.* at 598.

[27] *Sutter v. Robinson*, 119 U.S. 530, 541 (1886).

[28] *Dobson v. Lees*, 137 U.S. 258, 265 (1890) (citing *Union Metallic*, 112 U.S. 624; *Shepard*, 116 U.S. 593; *Roemer v. Peddie*, 132 U.S. 313; *Yale Lock Co. v. Berkshire Nat. Bank*, 135 U.S. 342, 379 (1890)).

> office having rejected it, and he having acquiesced in such rejection, he is, under the repeated decisions of this court, now estopped to claim the benefit of his rejected claim or such a construction of his present claim as would be equivalent thereto. *Leggett v. Avery*, 101 U.S. 256; *Shepard v. Carrigan*, 116 U.S. 593, 6 Sup. Ct. 493; *Crawford v. Heysinger*, 123 U.S. 589, 606, 8 Sup. Ct. 399; *Union Metallic Cartridge Co. v. U.S. Cartridge Co.*, 112 U.S. 624, 5 Sup. Ct. 475. It is true that these were cases where the original claim was broader than the one allowed, but the principle is the same if the rejected claim be narrower.[29]

In other words, the applicant broadened his original patent claim and even so, this Court determined that he was precluded from claiming the benefit of his rejected claim in both the construction of his claim and under the doctrine of equivalents. Like the others, this case presents no enumerated threshold standard before this Court applied the filewrapper to claim construction.

In *Hubbell* in 1900, this Court compared "the rejected [original] claims and the one finally allowed," to determine proper scope of the claim and asked, "What then, was the difference or modification which resulted in the allowance of a claim?"[30] This Court,

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[29] *Morgan Envelope Co. v. Albany Perforated Wrapping Paper Co.*, 152 U.S. 425, 429 (1894).

[30] *Hubbell v. United States*, 179 U.S. 77, 83 (1900).

without applying any express standard, answered as follows:

> An examination of the history of the appellants's claim, as disclosed in the file wrapper and contents, shows, that, in order to get his patent, he was compelled to accept one with a narrower claim than that contained in his original application; and it is well settled that the claim as allowed must be read and interpreted with reference to the rejected claim and to the prior state of the art, and cannot be so construed as to cover either what was rejected by the Patent Office or disclosed by prior devices.[31]

The Court determined that a "limitations imposed by the inventor, especially such as were introduced into an application after it had been persistently rejected, must be strictly construed against the inventor and in favor of the public, and looked upon as in the nature of disclaimers."[32] The amended claim was strictly construed in light of the prosecution history and no literal or doctrine of equivalents infringement was found.

In 1907, in *Computing Scale Co. of America*, this Court stated that "it is perfectly well settled in this court by frequent decisions that where an inventor, seeking a broad claim which is rejected, in which

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[31] *Id.* at 80 (citing *Leggett*, 101 U.S. 256; *Shepard*, 116 U.S. 593; *Knapp v. Morss*, 150 U.S. 221, 227 (1893)).

[32] *Hubbell*, 179 U.S. at 83-84.

rejection he acquiesces, substitutes therefor a narrower claim, he cannot be heard to insist that the construction of the claim allowed shall cover that which has been previously rejected."[33] Using filewrapper arguments and amendments, this Court created "a more reasonable construction" and found no infringement.[34]

From 1921 to 1931, this Court decided three cases in this area of patent law.[35] In the 1921 case of *Weber*, a case starkly similar to the present case, this Court held that the patentee "voluntarily restricted himself to a 'specific structure'" when he amended his claim and made certain arguments to distinguish his invention from the prior art, because he was "clearly implying" that his own invention did not include the feature found in the prior art.[36] In 1926, citing most of the aforementioned cases, this Court again looked to a filewrapper for guidance and held that an amended claim, especially "after it had been persistently rejected, must be strictly construed against the inventor and looked upon as disclaimers. The patentee is thereafter estopped to claim the benefit of his rejected claim or such a construction of his amended claim as would be equivalent thereto."[37] And in 1931,

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[33] *Computing Scale Co. of America v. Automatic Scale Co.*, 204 U.S. 609, 617 (1907) (citing *Corbin Cabinet Lock Co. v. Eagle Lock Co.*, 150 U.S. 38, 40 (1893)).

[34] *Computing Scale*, 204 U.S. at 621.

[35] *Weber Electric Co. v. E. H. Freeman Electric Co.*, 256 U.S. 668 (1921); *I.T.S. Rubber Co. v. Essex Rubber Co.*, 272 U.S. 429 (1926); *Smith v. Magic City Kennel Club*, 282 U.S. 784 (1931).

[36] *Weber*, 256 U.S. at 677.

[37] *I.T.S. Rubber*, 272 U.S. at 444.

using the exact same quotation, this Court reached a similar result under a doctrine of equivalents analysis.[38]

In 1942 case of *Exhibit Supply*[39] this Court cited to the aforementioned cases and concluded, during claim construction, that because the applicant "recognized and emphasized the difference between the two phrases and proclaimed his abandonment of all that is embraced in that difference[,]" "the amendment operates as a disclaimer of that difference [and] it must be strictly construed against him."[40]

Conclusion of Question 1

A historical retrospective of these Supreme Court cases highlights how the Federal Circuit's decision in this case ignores this Court's long-standing precedent. The Federal Circuit has abandoned this Court's "reasonable" standard. At the very least, the Federal Circuit has replaced it with its own, much higher "manifest exclusion or restriction"[41] or "clear and unmistakable"[42] requirement; one that must be met before allowing a dictionary definition of a claim term to be modified by a filewrapper argument or amendment. Instead of empowering patentees with dictionary definitions, which are narrowed in only limited circumstances like the Federal Circuit currently does,

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[38] *Smith*, 282 U.S. at 790.

[39] *Exhibit Supply Co. v. Ace Patents Corp.*, 315 U.S. 126, 136-37 (1942).

[40] *Id.*

[41] App. 6a-7a.

[42] *Omega Eng'g Inc. v. Raytek Corp.*, 334 F.3d 1314, 1328 (Fed. Cir. 2003).

this Court has repeatedly held for over a century that an amendment, especially where a claim was repeatedly rejected, is to be strictly construed against the patentee or at least reasonably construed. This is logical because it is the patentee's "province to make his own claim, and his privilege to restrict it."[43]

The role of the patent and its prosecution history is to provide the public with adequate notice of potentially infringing behavior.[44] Long-standing precedent permits the public to reasonably reply on arguments and amendments presented to the Patent Office so that claims reasonably encompass the subject matter sculpted by the prosecution history. Thus, allowing a patentee's claims to encompass a broad claim construction, while minimizing, if not ignoring, the patentee's representations, turns the public notice function on its head.

The Federal Circuit's current standard undermines the significance of the prosecution history by eliminating the patentee's burden to point out and distinctly claim the invention. It also has the deleterious effect of promoting unclear and ambiguous

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[43] *Sargent v. Hall Safe & Lock Co.*, 114 U.S. 63, 86 (1885) (citing *Fay v. Cordesman*, 109 U.S. 408, 420 (1883)).

[44] *Warner-Jenkinson*, 520 U.S. at 29; *Hockerson-Halberstadt, Inc. v. Avia Group Int'l, Inc.*, 222 F.3d 951, 957 (Fed. Cir. 2000) ("The prosecution history constitutes a public record of the patentee's representations concerning the scope and meaning of the claims, and competitors are entitled to rely on those representations when ascertaining the degree of lawful conduct, such as designing around the claimed invention.").

filewrapper statements and amendments.[45] Put simply, the Federal Circuit's new standard rewards obfuscation by the patentee by enlarging the scope of the patent's claims. This is contrary to the 100+ years of United States Supreme Court case law and should be corrected.

If the Federal Circuit had employed the correct standard, consistent with 100+ years of precedent by this Court, it should have affirmed the Utah District Court's determination of non-infringement and, more particularly, its underlying claim construction.

Question 2. When construing patent claims, should the standard for assessing the prosecution history be higher than the standard which is applied to those same arguments and amendments when assessing prosecution history under the doctrine of equivalents?

A review of prosecution history estoppel begins at the seminal doctrine of equivalents case of *Winans v. Denmead*, 56 U.S. (15 How.) 330 (1853) where this Court provided patentees with the ability to extend a claimed element to equivalents of the disputed claim term but only if the equivalent had not been relinquished during prosecution of the patent application.[46] This was recently reaffirmed and

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[45] 35 U.S.C. § 112, ¶2 ("The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.").

[46] *Winans v. Denmead*, 56 U.S. (15 How) 330; *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 609 (1950) ("[w]hat constitutes equivalency must be determined against the context

reiterated by this Court in *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*, 520 U.S. 17 (1997) and in *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*, 535 U.S. 722 (2002). Specifically in *Festo*, this Court held "the inventor to the representations made during the application process and *to the inferences that may reasonably be drawn* from the amendment."[47] Thus, *Festo* indicates that a "reasonable inference" standard must be used to determine the scope of available equivalents for a disputed claim term under the doctrine of equivalents.

This is the same standard that should be used when interpreting the prosecution history during claim construction during prosecution disclaimer analysis. To do otherwise distorts logic and subverts the notice requirement to competitors. And yet, the Federal Circuit's current standard is diametrically opposed to the reasonable inference mandated by *Festo*.

The Federal Circuit has established different standards for literal claim interpretation and for claim interpretation under the doctrine of equivalents. Before permitting modification of the dictionary definition, the Federal Circuit requires a clear intent of "manifest exclusion or restriction."[48] Thus, arguments and amendments made during prosecution have no effect on claim scope unless they trigger a high

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of the patent, the prior art, and the particular circumstances of the case.").

[47] *Festo*, 535 U.S. at 737-38 (emphasis added); *see also Eames v. Andrews*, 122 U.S. 40, 57 (1887) (using a "reasonable inference" standard to interpret an original specification and its meaning, in light of a later filed specification).

[48] App. 6a-7a.

standard of intent. However, claim scope may be readily restricted under the doctrine of equivalents after a mere showing of a reasonable inference that the patentee relinquished the subject matter at issue.

The ramifications of this are ground shaking to both the public and patentees. There are approximately 1.2 million patents that are currently enforceable and under the Federal Circuit's analysis, almost all of the claim terms within them will be defined by a dictionary, while the arguments and amendments are ignored unless there is "an expression of manifest exclusion or restriction" in the filewrapper.[49] With unmodified dictionary definitions providing the limits of what a claim term means, patent claims will be read broadly because these sweeping definitions will no longer be balanced or tempered by the filewrapper arguments or amendments. With broaden claims, literal infringement will be found more often and that minimizes the applicability of the doctrine of equivalents. With literal infringement a foregone conclusion due to the unbalanced breadth of the claims, accused infringers must turn to invalidating patents under a clear and convincing standard, as opposed to defending against a preponderance of the evidence standard for patentee's changes of infringement. A chilling effect on innovation is also experienced as the unbalanced scope of patents expands.

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[49] U.S. Patent and Trademark Office, U.S. Patent Statistics, Calendar Years 1963-2001 (March 2002), at http://www.uspto.gov/web/offices/ac/ido/oeip/taf/us_stat.pdf

The Federal Circuit's aberrant standard eviscerates the doctrine of equivalents and is contrary to the guidance provided by this Court in *Festo*, with its reasonable inference standard, and eliminates the public notice function or the entire patent system. The Federal Circuit's standard should be reviewed by this Court.

In this case, the Utah District Court properly used Mr. Simmons' filewrapper to construe the claim term "bottom for moving over snow" to exclude concave bottoms like the prior art Labelle ski. The Federal Circuit dismissed Mr. Simmons' numerous arguments and amendments that were caused by Labelle and reversed the District Court's claim construction. Using a dictionary and nothing else, the Court construed "bottom" as "underside" and therefore "bottom for moving over snow" as "underside for moving over snow." With a ski that is concave and substantially similar to Labelle's concavity, the arguments and amendments by Mr. Simmons are protected as inconsequential and unworthy of modifying the claim term bottom on underside definition. The application of this unbalanced analysis in this case disrupted the claim construction and the public notice function of the patent system.

CONCLUSION

The Federal Circuit's higher standard for claim construction eliminates the notice burden that has been placed upon patentees for centuries and encourages obfuscation in their dealings with the patent office. It changes the patent cases from infringement to invalidity which shifts the burden from patentee with a

preponderance of the evidence standard for infringement to the accused infringer with a clear and convincing evidence standard for invalidity. It eviscerates the doctrine of equivalents, since literal infringement will become broader. And, it studiously ignores the "reasonable inference" standard proffered by this Court so recently in the *Festo* decision.

For these reasons and those set forth above, the petition for a writ of *certiorari* should be granted and the judgment below reversed.

Respectfully submitted,

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(Any footnotes trail the end of each document)

03-1045

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

SIMMONS, INC.,
Plaintiff-Appellant,

v.

BOMBARDIER, INC. and BOMBARDIER MOTOR CORPORATION OF AMERICA,
Defendants-Appellees.

July 29, 2003, Decided

JUDGES: Before MAYER, Chief Judge, GAJARSA, and LINN, Circuit Judges.

OPINION: PER CURIAM.

Simmons, Inc. ("Simmons") appeals the judgment of the United States District Court for the District of Utah granting Bombardier, Inc.'s and Bombardier Motor Corporation of America's (collectively "Bombardier") motion for summary judgment of noninfringement of U.S. Patent No. 5,836,594 (the "'594 patent") and denying its motion for a preliminary injunction. Simmons, Inc. v. Bombardier, Inc., No. 01-CV-48 (D. Utah Sept. 16, 2002) (Findings of Fact and Conclusions of Law and Order). Because the court erred in its construction of the asserted claims, and based its denial of Simmons's preliminary injunction

motion on that construction, we vacate and remand for further proceedings.

Simmons, assignee of the '594 patent, initiated an infringement suit against Bombardier alleging, inter alia, that Bombardier's Precision ski product infringes claims 1, 2, 6, and 9-11 of the '594 patent. The '594 patent relates to a snowmobile ski with the improvement of having downward extending sides in conjunction with an upwardly curved forward portion. This facilitates a snowmobile's movement across snow and ice, and provides it with directional guidance. Independent claims 1 and 10 are the broadest claims and both include the limitation at issue. Both claims recite:

Claim 1:

A snowmobile ski, comprising:

a base extending in a longitudinal direction and having a bottom for moving over snow, the base also extending in a lateral direction between a first edge and a second edge thereof and having a top adapted to be connected to a snowmobile;

a first side portion extending in the longitudinal direction and extending downward from the first edge;

a second side portion extending in the longitudinal direction and extending downward from the second edge;

a first guide rod disposed on a bottom of the first side portion; and a second guide rod disposed on a bottom of the second side portion.

'594 patent, col. 6, ll. 58-67 (emphasis added).

Claim 10:

A snowmobile ski, comprising:

a base extending in a longitudinal direction and having a bottom for moving over snow, the base also extending in a lateral direction between a first edge and a second edge thereof and having a top adapted to be connected to a snowmobile;

a first side portion extending downward from the first edge and extending in the longitudinal direction;

a second side portion extending downward from the second edge and extending in the longitudinal direction, the first and second side portions having a front and a rear and tapering downward from the base at the front and tapering upward toward the base at the rear;

a first guide rod disposed on a bottom of the first side portion; and a second guide rod disposed on a bottom of the second side portion.

Id. at col. 7, ll. 1-8 (emphasis added).

The district court construed the phrase "bottom for moving over snow" to require "flat middle and rear

bottom portions that would serve to funnel snow underneath the middle portion of the ski and enhance flotation." To support this construction, the court relied on a passage found in the '594 patent's "Summary of the Invention": "Flotation is enhanced by forming the base of the ski so that as it moves across snow, the snow is funneled toward the middle portion of the ski." The court further cited a passage from the "Description of the Preferred Embodiment" where the patentee describes how a snowmobile ski "having a flat middle bottom (40), as depicted in FIG. 4, and rear bottom (60), as portrayed in FIG. 5, also aids flotation on snow." In addition, the court concluded that the prosecution history of the '594 patent required that claim coverage be limited to circumstances in which the middle and rear bottom portions of the ski are flat.

In light of its claim construction and prosecution history analyses, the court held that the claims as interpreted did not read on the accused product either literally or under the doctrine of equivalents and entered summary judgment of noninfringement for Bombardier. It also denied Simmons's request for a preliminary injunction.

At the outset, we note that the parties are in contention about the claim language the district court should have construed in this dispute. Simmons asserts that it was only necessary for the court to construe the word "bottom," while Bombardier successfully urged construction of the phrase "bottom for moving over snow." The court properly determined that the limitation in dispute was "bottom for moving over snow" because the word "bottom" in this particular instance finds context in the surrounding words. See

Hockerson-Halberstadt, Inc. v. Converse Inc., 183 F.3d 1369, 1374 (Fed. Cir. 1999) (surrounding words of disputed claim language must also be considered in determining the ordinary and customary meaning of that language). However, the court erred in abandoning its quest for a common meaning for an individual word that is part of a phrase that lacks a common meaning. Altiris, Inc. v. Symantec Corp., 318 F.3d 1363, 1372 (Fed. Cir. 2003).

Simmons argues that the court improperly narrowed the scope of claims 1 and 10 by limiting the claimed snowmobile ski to a particular shape, i.e., flat in the middle and rear portions. It contends that "bottom" as used in the limitation at issue has an ordinary and customary meaning of "the underside." The American Heritage College Dictionary 163 (3d ed. 1993). Simmons also argues that the court erroneously imported limitations from the written description into the claims and misapplied the prosecution history as limiting the scope of the claims at issue. Bombardier defends the court's claim construction and noninfringement analysis asserting that the written description and prosecution history of the '594 patent require that the claim language be restricted to a snowmobile ski with a certain shape.

The analytical focus of claim construction must begin and remain centered on the language of the claims, for it is that language that the patentee chose to use to "particularly point[ ] out and distinctly claim[ ] the subject matter which the applicant regards as his invention." 35 U.S.C. § 112, P 2 (2000). Claim language is given its plain, ordinary, or accustomed meaning to one of ordinary skill in the relevant art, unless the

applicant has imparted a novel meaning to the language. See Teleflex, Inc. v. Ficosa N. Am. Corp., 299 F.3d 1313, 1325 (Fed. Cir. 2002).

The district court erred in incorporating limitations of the preferred embodiment into the "bottom for moving over snow" claim limitation. Its consultation of the written description and prosecution history before making any effort to discern the ordinary and customary meanings attributed to the language of the claims was premature. Tex. Digital Sys. v. Telegenix, Inc., 308 F.3d 1193, 1204 (Fed. Cir. 2002). The court also erred in concluding that Simmons had implicitly defined the limitation at issue. A basic canon of claim construction is that one may not read a limitation into a claim from the written description. Renishaw PLC v. Marposs Societa' Per Azioni, 158 F.3d 1243, 1248 (Fed. Cir. 1998). Although one may look to the written description to define a disputed term already in a claim limitation, "the resulting claim interpretation must, in the end, accord with the words chosen by the patentee to stake out the boundary of the claimed property." Id.

Contrary to the court's conclusion, the specification does not show that Simmons implicitly defined the claim language at issue or restricted claims 1 and 10 to the preferred embodiment. Nothing in the intrinsic evidence suggests that the middle bottom (40) or the rear bottom (60) should be limited to being flat. The flat middle and rear bottom limitation is simply not present in claims 1 or 10, thus the language of the asserted claims does not limit them to that requirement. Moreover, neither the specification nor the prosecution history includes an expression of

manifest exclusion or restriction demonstrating intent to limit the middle bottom (40) or the rear bottom (60) to being flat. Although the specification describes only one embodiment of the middle bottom (40) and the rear bottom (60), no "clear statements of scope" limit those details to having an underside that is flat.

The court's requirement that the "bottom for moving over snow" limitation of claims 1 and 10 be flat in the middle and rear portions impermissibly reads limitations from the specification into the claims. Because the patentee did not deviate from the accustomed meaning of the disputed language we construe the limitation "bottom," in context with its surrounding language in claims 1 and 10, to mean "the underside for moving over snow." Accordingly, we vacate the court's grant of summary judgment of noninfringement in favor of Bombardier and remand for further proceedings consistent with this opinion.

Finally, Simmons argues that the court abused its discretion in denying its motion for preliminary injunction. It contends that the court failed to provide analytical support for its denial and simply relied on its erroneous claim construction. Bombardier responds that the court made specific findings about the shape of the patented invention and the prior art in addition to construing the claims.

The grant or denial of a preliminary injunction under 35 U.S.C. § 283 is within the discretion of the district court. Purdue Pharma L.P. v. Boehringer Ingelheim GmbH, 237 F.3d 1359, 1363 (Fed. Cir. 2001). We will disturb such a decision only if the district court made a clear error of judgment, or based its decision on

an erroneous legal conclusion or clearly erroneous factual findings. Id. Because the court's denial of Simmons's preliminary injunction motion was premised upon its errant claim construction, we vacate that ruling and remand the matter for a determination consistent with our claim construction.

Case No. 1:01CV48 DAK

IN THE UNITED STATES DISTRICT COURT FOR
THE DISTRICT OF UTAH
NORTHERN DIVISION

SIMMONS, INC.,
Plaintiff,

V.

BOMBARDIER INC. and BOMBARDIER MOTOR
CORPORATION OF AMERICA,
Defendants.

This matter is before the court on (1) Plaintiff Simmons, Inc.'s ("Simmons") Motion for Preliminary Injunction, (2) Defendant Bombardier Inc. and Bombardier Motor Corporation of America's (collectively "Bombardier") Motion for Summary Judgment of Noninfringement, and (3) Simmons' Motion for Partial Summary Judgment of Infringement. A hearing on the motion for a preliminary injunction was held on June 20, 2002. At the hearing, Simmons was represented by Alan M. Anderson. Bombardier was represented by William P. Atkins. Before the hearing, the court considered carefully the memoranda and other materials submitted by the parties.

Prior to the hearing on the motion for a preliminary injunction, Bombardier filed a motion for summary judgment, and Simmons subsequently filed a cross-motion for partial summary judgment. The parties did not seek further argument on their cross-

motions for summary judgment. The cross-motions were fully briefed on August 19, 2002.

Since taking the motion for a preliminary injunction under advisement, the court has further considered the law and facts relating to the motion and has carefully considered the crossmotions for summary judgment. Now being fully advised, the court renders the following Findings of Fact and Conclusions of Law and Order.

I. CROSS MOTIONS FOR SUMMARY JUDGMENT REGARDING PATENT INFRINGEMENT

A. FINDINGS OF FACT

1. This action involves a dispute among competing manufacturers of snowmobile skis. Simmons is a small Utah company that manufactures and sells a variety of snowmobile related parts and accessories, including a commercial embodiment of the invention disclosed in United States Patent No. 5,836,594 (the "'594 Patent") under the federally registered mark Flexi-Ski.

2. Simmons is the assignee of the '594 Patent" issued to Simmons' owner and president Verlin Simmons on November 17,1998.

3. On April 10, 2001, Simmons filed a complaint alleging, among other things, that Bombardier's Precision Ski infringed the '594 Patent.

4. Bombardier manufactures and sells snowmobiles and related products, including snowmobile skis under

the Ski-Doo mark. Bombardier Motor Corporation of America is a subsidiary of Bombardier Inc.

5. The claimed invention relates to skis used on snowmobiles and similar vehicles to support such vehicles, to facilitate their movement across snow and ice, and to provide directional guidance for them.

The Claims

6. Simmons alleges that Bombardier's Precision Ski infringes claims 1, 2, 6, 9, 10, and 11 of the '594 Patent.

7. Claims 1 and 10 are independent claims. Claims 2 and 9 are claims that depend from claim 1. This means that an infringing device must have all of the elements or limitations of independent claim 1 as well as those of the dependent claims. Specifically, claim 2 depends from claim 1 and adds the limitation that the bottom and side portions form a channel. Claim 6 of the '594 Patent depends from claim 2 and specifies the additional limitation that the front portion of the "bottom" of the snowmobile ski base specified in claim 1 "compris[e] a concavity." Claim 9 depends from claim 1 and adds the limitation that the side portions taper down at the front and up at the rear of the ski. Claim 10 is an independent claim which is a combination of the limitations of claims 1 and 9. Claim 11 depends from claim 10 and is a combination of the limitations of claims 10 and 2.

8. Claim 1, the broadest claim, generally requires a snowmobile ski having a base, two side portions, and two guide rods, where the base has a "bottom for moving over snow." Specifically, paragraph 1 of claim 1

requires a "base extending in a longitudinal direction and having a bottom for moving over snow, the base also extending in a lateral direction between first edge and second edge thereof and having a top adapted to be connected to a snowmobile." Paragraph 2 of claim 1 further requires a "first side portion" and a "second side portion." In addition, the claim requires that these side portions each have a guide rod disposed on its bottom.

9. Claim 10 also recites the elements for a snowmobile ski having a specific configuration, and in language identical to claim 1, claim 10 requires a "base extending in a longitudinal direction and having a bottom for moving over snow, the base also extending in a lateral direction between first edge and second edge thereof and having a top adapted to be connected to a snowmobile. Claim 10 further recites a "first side portion" and a "second side portion." In addition, the claim requires that these side portions each have a guide °'rod disposed on its bottom.

The Specification

10. In describing the background of the invention, the '594 Patent specification defines several desirable characteristics of a snowmobile ski. The "ability to float on deep snow" is the first desirable characteristics mentioned.

11. In discussing how prior art patents have attempted to achieve these desirable characteristics, the '594 Patent specification admits that to "increase flotation some skis have sides which extend farther downward than does any other portion of the bottom of the ski."

12. The '594 Patent further states that "downwardly extending sides, especially when they do not form part of a uniform curve across the bottom of the ski, keep snow from sliding away to the side as the ski is rolled slightly to create-from the weight of the snowmobile or the user-a horizontal component of force to aid in turning just as does a banked or superelevated curve on a highway."

13. The specification explains that the "snowmobile ski's having a flat middle bottom (40), as depicted in FIG. 4, and rear bottom (60), as portrayed in FIG. 5, also aids flotation on snow, as by preventing. snow from being forced outward from the sides of the snowmobile ski when weight is placed on such ski."

14. The specification further states that "the middle bottom (40) is substantially planar."

15. In discussing the ability to move over snow, the specification states that the "importance lies in that the side portions (42) extend downwardly relative to the center portion of the ski, i.e., the longitudinal center portion."

The Prosecution History

16. Simmons filed the patent application for the '594 Patent on March 15, 1994. The PTO assigned it application Serial No. 08/213,950 (the "'950 application").

17. The '594 Patent states that it is a continuation-in-part of application Serial No. 08/088,411 (the "'411 application"), which was filed July 1, 1993 and is now

United States Patent No. 5,360, 220 (the '220 patent"), which is a continuation-in-part of application Serial No. 07/988,231 (the '"231 application'), filed December 9, 1992 and is now abandoned.

18. A "continuation-in-part" application is one (1) that is filed during the lifetime of an earlier application (this is codependency), (2) repeats some substantial portion or all of the earlier application, and (3) adds new matter that was not disclosed in the earlier application.

19. The '411 application, entitled "snowmobile Ski Flexing Apparatus," described a flexible and substantially planar snowmobile ski with a loop on its front end, but did not describe the bottom of the ski or its shape. As a result, the '220 patent, which matured from the '411 application, does not disclose any attributes regarding the bottom of the ski.

20. The '231 application, entitled "Snowmobile Ski," describes a snowmobile ski wherein "[t]he lower surface of the ski 10 is substantially concave-shaped from the front portion 12 to the rear portion 14, and to a greater degree in the middle portion 36 of the ski." However, "the lower surface of the ski 10 may be concave in only part of its length, . . . [and] [t]he middle portion 36 of pronounced concavity coincides with the length and longitudinal location of the two wear bars 38 disposed on the side edges of the ski 10."

21. During examination of the '231 application, the PTO issued its first and only Office Action on September 16, 1993 and rejected all the claims of the '231 application as being anticipated under 35 U.S.C. § 102(b) by various other patents, including "Labelle

'221." The examiner explained, among other things, that Labelle discloses a "concave surface extending over substantially the entire length of the member and disposed on the middle portion."

22. In so doing, the examiner explained that Labelle '221 discloses a planar snowmobile ski having a "substantially concave 22 surface disposed on the lower member of the ski and whose width extends 'substantially' to the first and second lengthwise sides."

23. Simmons did not respond to the Office Action. As a result the PTO mailed Simmons a Notice of Abandonment on April 26, 1994.

24. On March 15, 1994, Simmons filed the '950 application with the PTO. At that time, the '950 application did not claim priority to the '231 or the '411 applications.

25. On May 17, 1995, the PTO issued an Office Action rejecting the independent claims of the '950 application as being anticipated by Labelle and another patent.

26. On November 17, 1995, Simmons responded to the Office Action by distinguishing the invention of the '950 application from Labelle. Simmons repeatedly argued that "Labelle "exhibits a pronounced concave shape throughout its entire length." Simmons referred to its own specification and argued that, in contract to Labelle, the claimed invention is a "snowmobile ski having a flat middle bottom (40), as depicted in Figure 4, and a rear bottom (60), as portrayed in Figure 5.[1]

27. April 12, 1996, the PTO again rejected the claims of the '950 application as being anticipated or rendered obvious by Labelle, and other prior art references.[2] In explaining the obviousness rejections, the PTO explained that "Labelle teaches the old and well-known construction of a snowmobile having a (central) concave about the longitudinal extent thereof (see figures 4, 5, and 9 for instance.)" The PTO specifically commented in reply to Simmons' responses that "applicant's remarks are much more specific than the claim language calls for" and the "broad claim recitations as presently set forth are fairly met by the teachings of references outlined above."

28. In response, on March 10, 1997, Simmons appealed the rejections to the Board of Patent Appeals and Interferences of the PTO (the "Board"). In its appeal brief, Simmons repeatedly admitted that patentability of the invention may depend on the combination of "the concave shape of the front portion (101) . . . with [the] flat middle bottom (40) and flat rear bottom (60)."

29. In its appeal brief to the Board, Simmons once again distinguished the invention from Labelle by stating that "[t]he ski of Labelle exhibits a pronounced concave shape throughout its entire length."

30. On November 3, 1997, Simmons submitted an amendment making the '950 application a continuation-in-part of the '411 application.

31. On January 6, 1998, the Board remanded the case to the examiner for a determination as to whether the '950 application appropriately could claim priority

to the '411 application as a continuation-in-part and any further appropriate action.

32. Simmons then hired new patent counsel who conducted an interview with the PTO examiner on May 11, 1998 to discuss the priority claim issue. On May 13, 1998, the PTO issued an Examiner Interview Summary Record indicating that an amendment making the '950 application a continuation-in-part of the '231 application would be entered, but that the remaining prior art rejections were still in force.

33. On June 2, 1998, in response to these prior art rejections, Simmons' patent attorney filed an amendment canceling all of the claims that were then existing in the application and adding new application claims 20-39. Application claim 20 (now patent claim 1) called for a snowmobile ski "having a bottom for moving over snow, the base also extending in a lateral direction between first edge and second edge thereof and having a top adapted to be connected to a snowmobile." Application claim 29 (now patent claim 10) also called for a snowmobile "having a bottom for moving over snow, the base also extending in a lateral direction between first edge and second edge thereof and having a top adapted to be connected to a snowmobile.

34. In presenting these new claims, Simmons argued that there is adequate support in the specification of the application for these claims. Simmons stated that "[c]laim 20 finds support and antecedent basis in the specification in Figures 2 and 3 . . . and in the specification at page 9, line 1 and page 15, line 24." Figures 2 and 3 are described in the section of the specification entitled "Description of the Preferred

Embodiment." In Figure 2 the bottom of the middle portion of the snowmobile is labeled at number 40. This portion is described as "a flat middle bottom (40)" and "the middle bottom (40) is substantially planar." In addition, Simmons explained that "Claim 20 also recites a bottom for moving over snow that finds support and antecedent basis in Figure 2."

35. On July 23, 1998, the PTO issued a Notice of Allowance in connection with the '950 application.

36. The application issued as the '594 Patent on November 17, 1998 and application claim 29 issued as claim 10 of the '594 Patent.

Bombardier's Precision Ski

37. In early 2000, Bombardier acquired approximately 13 pairs of the Simmons Flexi-Ski. Bombardier extensively tested the Flexi-Ski as sold by Simmons and with various minor modifications. Upon completion of these tests, Bombardier began development of a design drawing for its Precision snowmobile ski.

38. The Precision Ski has a bottom that is concave in cross-section from tip to tail and does not have a flat middle bottom or a flat rear bottom.

B. CONCLUSIONS OF LAW

1. The moving party is entitled to summary judgment "if the pleadings, depositions, answers to interrogatories and admissions on file, together with the affidavits, if any, show that there is not genuine

issue as to any material fact and that the moving party is entitled to a judgment as a matter of law." Fed. R. Civ. P. 56(c). Summary judgment is appropriate when it is apparent that only one conclusion as to infringement could be reached by a reasonable jury. ATD Corp v. Lydall, Inc., 159 F.3d 534, 540 (Fed. Cir.1998). Summary judgment of noninfringement is also appropriate where the patent owner's proof is deficient in meeting an essential part of the legal standard for infringement, because such failure will render all other facts immaterial. London v. Carson Pirie Scott & Co., 946 F.2d 1534,1537 (Fed. Cir.1991).

2. Patent infringement analysis is a two-step process: (1) determining the meaning and scope of the claims; and (2) comparing the properly construed claims to the accused device to determine whether all of the claim elements are found in that device either literally or under the doctrine of equivalents. Kemco Sales, Inc., v. Control Papers Co., Inc., 208 F.3d 1352,1359 (Fed. Cir. 2000); Markman v. Westview Instruments, Inc., 52 F.3d 967, 976 (Fed. Cir.1995), aff'd 517 U.S. 370 (1996).

3. The court's primary tools for determining the meaning and scope of a claim are the words of the claims themselves, the patent specification, and the prosecution history of the patent. These tools are commonly referred to as "intrinsic evidence" of the meaning of the patent claims." Bell Atlantic Network Servs., Inc. v. Covad Communications Group Inc., 262 F.3d 1258, 1267 (Fed. Cir. 2001).

4. Claim terms are "not construed in a lexicographic vacuum, but in the context of the specification and drawings." Toro Co. v. White Consol.

Indus., Inc., 199 F.3d 1295, 1301 (Fed. Cir.1999). The meaning of a claim term should be found in or ascertained by reading the patent documents. Bell Atlantic, 262 F.3d at 1268.

5. Any attempt to construe the scope of the claims must first begin with the words of the claims themselves. Id. at 1267. The words in a claim are generally given their ordinary meaning as understood by one of ordinary skill in the art, unless a special meaning is stated in the specification history or file history. Id.; Day Int'l, Inc. v. Reeves Bros., Inc., 260 F.3d 1343, 1348 (Fed. Cir. 2001) (recognizing that "a court must nevertheless examine the remaining intrinsic evidence to determine whether the patentee has set forth an explicit definition of a term contrary to its ordinary meaning, has disclaimed subject matter, or has otherwise limited the scope of the claims.").

6. The intrinsic evidence shows that the '594 Patent covers skis with a particular configuration, namely, skis having flat middle and rear bottom portions.

7. The term "bottom for moving over snow" appears in claims 1 and 10 of the '594 Patent and therefore is required by all of the asserted claims. The term finds no support from any dictionary. Instead, by both the specification and the prosecution history of the '594 Patent, Simmons has defined this term.

8. Simmons cannot avoid the specification and prosecution history that was created to procure the '594 Patent. Bell Atlantic, 262 F.3d at 1268; Netword LLC v. Central Corp., 242 F.3d 1347, 1352 (Fed. Cir. 2001) ("The claims are directed to the invention that is

described in the specification; they do not have meaning removed from the context from which they arose.").

9. Although it is improper to incorporate extraneous limitations from the specification into the claims, the specification may define claim terms "by implication" such that the meaning may be found in or ascertained by a reading of the patent documents. Bell Atlantic, 262 F.3d at 1268. This is particularly true where a claim term deprives the claim of clarity such that there are not means by which the scope of the claim may be ascertained from the language used. Id.

10. Simmons implicitly defined the term "bottom for moving over snow" in the specification. The '594 Patent explains that "flotation is enhanced by forming the base of the ski so that as it moves across snow, the snow is funneled toward the middle portion of the ski." Thus, the specification concedes that the inventive concept of the ski is to funnel the snow toward the middle of the ski to improve flotation on snow. The specification goes on to state that "having a flat middle bottom (40) as depicted in FIG. 4, and rear bottom (60), as portrayed in FIG.5, also aids flotation on snow."

11. Based on these statements and figures, a person of ordinary skill in the art reading the specification would understand that the claimed "bottom for moving over snow" calls for flat middle and rear bottom portions that would serve to funnel snow underneath the middle portion of the ski and enhance flotation.

12. Arguments and amendments made during the prosecution of a patent application must be examined to determine the meaning of terms in the claims. Bell

Atlantic, 262 F.3d at 1268. The prosecution history limits the interpretation of claim terms so as to exclude any interpretation that was disclaimed during prosecution. Id. Thus, claims may not be construed one way in order to obtain their allowance and in a different way against accused infringers. Southwall Technologies, Inc. v. Cardinal IG Co., 54 F.3d 1570, 1576 (Fed. Cir.1995).

13. In this case, the prosecution history indicates that the claim language "bottom for moving over snow" specifically means that the middle and rear bottom portions are flat. Simmons repeatedly distinguished its claimed invention over the prior art by arguing that a flat bottom in the middle and rear portions, combined with other features, rendered the invention patentable.

14. After the appeal was remanded to the examiner, when still faced with an outstanding rejection of its claims over Labelle and other references, Simmons amended its claims to specifically include the language "bottom for moving over snow." In so doing, Simmons remarked that the claim "recites a bottom for moving over snow that finds support and antecedent basis in Figure 2."

15. Having argued that the bottom of his claimed ski has a specific configuration-i.e., that shown in Figure 2 and which is flat in the middle and rear portions-and then adding language to the claim which covers that configuration in order to obtain the allowance of the claims, Simmons cannot now argue that the term "bottom for moving over snow" is meaningless and can be interpreted to mean any configuration of the bottom.

16. Thus, consistent with the prosecution history, the term "bottom for moving over snow" must be construed to mean a bottom that is flat in the middle and rear portions.

17. Based on the language of the claims, the statements in the specification, and the prosecution history of the '594 Patent, a person of ordinary skill in the art would understand the claim limitation "bottom for moving over snow" to require a bottom that is flat in the middle and rear portions.

18. To withstand summary judgment, Simmons must demonstrate that every limitation of a claim is present in Bombardier's Precision Ski either literally or under the doctrine of equivalents. See Warner-Jenkinson Co., Inc. v. Hilton Davis Chem. Co., 520 U.S. 17, 21 (1997).

19. The Precision Ski does not literally read on the claims reciting a "bottom for moving over snow." The Precision Ski has a concave bottom, not a "bottom for moving over snow." Thus, it does not literally infringe those claims.

20. Further, prosecution history estoppel precludes Simmons from covering Bombardier's Precision Ski under the doctrine of equivalents.[3]

21. Prosecution history estoppel prevents a patentee from asserting that the claims cover technology which was specifically disavowed during prosecution of the application which led to the patent. Day Int'l, 260 F.3d at 1350.

22. During prosecution of the '950 application, Simmons expressly distinguished the Labelle reference on the grounds that Labelle had a concave bottom extending the length of the ski. In fact, Simmons expressly stated that, in contrast to Labelle, its claimed invention is a "snowmobile ski having a flat middle bottom (40), as depicted in Figure 4, and a rear bottom (60), as portrayed in Figure 5."

23. Having distinguished its invention from Labelle on the grounds that Labelle has a concave bottom, Simmons cannot be allowed to recapture those same concave bottoms that it previously surrendered.

24. Simmons has failed to demonstrate that its arguments to the PTO did not surrender coverage of the Precision Ski. Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd., __ U.S. __ ,122 S. Ct.1831(2002).

25. Even if Simmons were not so estopped, the doctrine cannot be applied so broadly as to cover the prior art. See Wilson Sporting Goods Co. v. David Geoffrey & Assoc., 904 F.2d 677, 683 (Fed. Cir.1990). Skis with concave bottoms along the entire length of the ski were well known in the prior art. In fact, Labelle expressly teaches such a ski and states that its longitudinally extending central "groove (30) is co-extensive with the ski." Further, the PTO expressly recognized that "Labelle teaches the old and well-known construction of a snowmobile ski having a (central) concave about the longitudinal extent thereof (see figures 4, 5, and 8 for instance.)"

26. A side-by-side comparison of Figure 8 of Labelle and Section E-E of the Precision Ski confirms that both skis have concave middle bottom portions, and, therefore, are substantially the same in cross-section.

27. Because Simmons cannot rightfully extend its claims to cover Labelle under the doctrine of equivalents, it cannot extend its claims to cover the Precision Ski.

28. Bombardier has demonstrated, as a matter of law, that it has not infringed-either literally or under the doctrine of equivalents-Simmons' '594 Patent.[4]

29. The court's determination that Bombardier is entitled to summary judgment of noninfringement compels the denial of Simmons' motion for partial summary judgment of infringement and its motion for a preliminary injunction on its patent infringement claim.

II. MOTION FOR A PRELIMINARY INJUNCTION REGARDING TRADEMARK INFRINGEMENT

A. FINDINGS OF FACT[5]

1. On April 10, 2001, Simmons filed a complaint alleging, among other things, that Bombardier's use of the term "Flex Ski" infringed the Simmons Flexi-Ski trademark. On March 20, 2002, Simmons filed a motion for a preliminary injunction.

2. Since 1993, Simmons has used the mark Flexi-Ski in connection with the sale of its commercial embodiment of the invention disclosed in the '594 Patent.

3. On August 28, 1997, Simmons applied to the PTO to register the mark "Flexi-Ski."

4. In its application. Simmons submitted a sworn declaration that the mark had been used for five years because it "was first used on the goods at least as early as September 1992, and was first used in interstate commerce at least as early as September 1992."

5. Simmons' actual first use was not until September 1993, a year later than the date in the sworn declaration. Mr. Simmons admitted this in his declaration in another lawsuit, wherein he stated that "Simmons began selling its dual-runner skis under the Simmons Flexi-ski trademark in approximately September 1993."

6. Despite having filed the application less than five years after it had allegedly begun to use it, Simmons erroneously stated in the application that the "mark has become distinctive of the goods through the Applicant's substantially exclusive and continuous use in commerce for at least the five (5) years immediately before the date of this application."

7. Aside from a declaration from Mr. Simmons, Simmons presented no other evidence that the mark had become distinctive through its substantially exclusive use in commerce for five years.

8. On October 6, 1998, the PTO registered Simmons' Flexi-Ski mark.

9. On May 22, 2001, after it filed this action alleging trademark infringement, Simmons filed a Request for Correction of the '717 trademark registration. In doing

so, Simmons stated that the "date of first use of the mark in commerce should be corrected to 9-0-93." This corrected dated was a full year after the dated stated in the original application, and less than the five years averred in the trademark application.

10. The Simmons Flexi-Ski is recognized as having the characteristics of a flexible ski. Press reviews have commented on the flexible nature of the ski, and Simmons' own advertisements call it the "one TRUE flexible ski," and indicate that the ski is "designed to flex and absorb bumps and shocks."

11. The term "flex" is a recognized abbreviation for the word "flexible."

12. Simmons almost always uses its house mark "Simmons" in connection with the words "Flexi-Ski." The ski itself contains the full mark "Simmons Flexi-Ski," rather than just "Flexi-Ski." Media review also routinely use the uniform mark "Simmons Flexi-Ski."

13. Beginning in the 1998 model year, Bombardier introduced a lightweight, flexible plastic, single-keeled snowmobile ski. To emphasize this characteristic, sometime before 1998, Bombardier adopted the generic terms "Flex Ski" and "flex type ski" to identify this type of skis.

14. The Flex Ski is one of several broad categories of skis sold by Bombardier. Other categories include the "mountain ski" and "wide plastic skis."

15. Bombardier began using the term "Flex Ski" to refer to their flexible skis in model year 1998, before Mr. Simmons filed his application for trademark

registration, and more than four years before Simmons filed its motion for a preliminary injunction.

16. When Bombardier first adopted the term "Flex Ski," it was unaware of Simmons' use of the Flexi-Ski mark.

17. At the time Bombardier first adopted the term "Flex Ski," the PTO had not yet registered Simmons' mark.

18. Plastic Specialties Manufacturing, Inc. ("Plastic Specialties") uses the domain name www.flexski.com to sell its Ultra III flex ski-a flexible plastic snowmobile ski. In response to a threat of a trademark infringement lawsuit by Simmons, Plastic Specialties responded by stating that the term "flex ski" was generic, and the company continues to use that term to refer to its products.

19. In responding to Simmons' letter to Plastic Specialties regarding the alleged trademark infringement, Plastic Specialties pointed out various web sites that refer to flex ski products and at least one other patent that uses the term "flex ski" to identify flexible skis for snowmobiles.

20. The purchase of the Simmons Flexi-Ski is a significant purchase. The Flexi-Ski sells for approximately $400, including the hardware.

21. The purchase of Bombardier's Flex Ski is also a significant purchase. Counsel represented at oral argument that a pair of these skis, along with the

hardware to attach the skis, would amount to approximately $380.

22. Snowmobiles and snowmobile skis are fairly expensive products, and most customers research their purchases before buying.

23. The Simmons Flexi-Ski is sold in the aftermarket. Thus, the skis are not sold with the initial purchase of a snowmobile, but as a separate item to customize a snowmobile.

24. Prospective purchasers of aftermarket snowmobile skis are snowmobile enthusiasts and exercise a high degree of care when purchasing an aftermarket snowmobile ski.

25. Bombardier's Flex Skis are typically-but not exclusively-sold as part of the original equipment of a snowmobile rather than as aftermarket skis. The 2003 Bombardier snowmobile models will no longer be equipped with a Flex Ski, but a Flex Ski will be offered as a replacement part.

B. CONCLUSIONS OF LAW

1. To obtain preliminary injunctive relief, Simmons must establish:

(1) A substantial likelihood that [Simmons] will eventually prevail on the merits; (2) a showing that [Simmons] will suffer irreparable injury unless the injunction issues; (3) proof that the threatened injury to [Simmons] outweighs whatever damage the proposed injunction may cause to [Bombardier]; and (4) a

showing that the injunction, if issued, would not be adverse to the public interest.

SCFC ILC v. Visa USA, Inc., 936 F.2d 1096, 1098 (10th Cir.1991); Sofamor Danek Group, Inc. v. DePuy-Motech, Inc., 74 F.3d 1216,1219 (Fed. Cir.1996).

2. "Because a preliminary injunction is an extraordinary remedy, the right to relief must be clear and unequivocal." SCFC ILC, 936 F.2d at 1098.

3. A preliminary injunction that alters the status quo, as in this case, is disfavored and Simmons must meet the heavier burden of demonstrating that the four factors weigh "heavily and compellingly" in its favor before an injunction may issue. See Kikumura v. Hurley, 242 F.3d 950, 955 (10th Cir. 2001).

4. To demonstrate a probability of success on the merits of its trademark infringement claim, Simmons must demonstrate (1) its ownership of a valid trademark; and (2) a likelihood of confusion between Bombardier's Flex Ski mark with Simmons' registered Flexi-Ski trademark.[6]

Likelihood of Success

5. Under Section 43(a) of the Lanham Act, a plaintiff has a cause of action against any person whose use of a work, symbol, or device is likely to cause confusion regarding the source or origin of the plaintiff's goods. 15 U.S.C. § 1125(a)(1)(A); Wal Mart Stores, Inc. v. Samara Bros., 529 U.S. 205, 209 (2000).

6. Bombardier uses a generic term to describe its products. Furthermore, Plastic Specialties, Inc.'s use of the name ULTRA III Flex Ski to sell flexible skis, and also refers to its skis as "flex skis." It also has a web site at www.flexski.com. Other manufacturers have also used the term "flex ski" to describe their products. This third-party usage further bolsters the conclusion that the term "Flex Ski" is generic.

7. "Likelihood of confusion" forms the basis for a trademark claim. King of the Mountain Sports, Inc. v. Chrysler Corp., 185 F.3d 1084, 1089 (10th Cir. 1999). The Tenth Circuit has found the following six factors to be relevant in determining whether a likelihood of confusion exists between two marks:

(a) the degree of similarity between the marks; (2) the intent of the alleged infringer in adopting its mark; (c) evidence of actual confusion; (d) the relation in use and the manner of marketing between the goods or services marketed by the competing parties; (e) the degree of care likely to be exercised by purchasers; and (f) the strength or weakness of the marks.

Id. at 1089-90; see also Beer Nuts v. Cover Club Foods Co., 805 F.2d 920, 925 (10th Cir.1986) ("Beer Nuts II").

8. As to the six factors, "'[n]o one factor is dispositive, and the final determination of likelihood of confusion must be based on consideration of all relevant factors." Heartsprings, Inc. v. Heartspring, Inc., 143 F.3d 550, 554 (10th Cir.1998).

Strength of the Mark

9. Simmons' mark is merely descriptive rather than suggestive. Descriptive terms are those that directly convey to the buyer the ingredients, qualities, or characteristic of the product. Educational Dev't Corp. v. The Economy Co., 562 F.2d 26, 29 (10th Cir.1977).

10. Descriptive marks are entitled to protection only if they have come to be uniquely associated with a particular source, thereby acquiring a "secondary meaning." Beer Nuts, Inc. v. Clover Club Foods, Inc., 711 F.2d 934 (10th Cir.1983); Sunbeam Prods., Inc. v. West Bend Co., 123 F.3d 246, 252 (5th Cir.1997), abrogated on other grounds by Eppendorf-Netheler-Hinz GMBH v. Ritter GMBH, 289 F.3d 351(5" Cir. 2002).

11. Simmons registered its mark based on a claim of acquired distinctiveness through use in commerce for over five years. At the time it filed its application, however, Simmons had not actually used the mark in commerce for over five years. Rather, it had used the mark for approximately three years and eleven months.

12. Simmons' actual first use was not until September 1993, a year later than the date in the sworn declaration.

13. Because it has a registered mark, Simmons is entitled to a rebuttable procedural presumption that the mark enjoys secondary meaning.[7] GTE Corp. v. Williams, 904 F.2d 536, 538 (10th Cir.1990). The presumption, however, may be rebutted. Educational Dev't Corp., 562 F.2d at 28; National Nu Grape Co. v. Guest, 164 F.2d 874, 876 (10th Cir.1947), cert. denied, 333 U.S. 74 (1948).

14. "When a trade-mark is questioned, its validity must be established." National Nu Grape Co., 164 F.2d at 874.

15. In determining whether a mark has acquired secondary meaning, several factors are relevant, including advertising expenditures, consumer studies, sales, competitors' attempts to use the mark, and length and exclusivity of the mark's use. See Thompson Medical Co. v. Pfizer, Inc., 753 F.2d 208, 217 (2nd Cir.1985). No one factor is dispositive. Id.

16. Simmons has not presented evidence to demonstrate that its mark has acquired distinctiveness.

17. There is no evidence that the PTO would have registered the mark in the first instance had the application contained the correct date of first use.

18. There is no evidence that Simmons' mark had acquired distinctiveness at the time Bombardier began the use of the term "Flex Ski."

19. The evidence demonstrates that Bombardier has used the term "Flex Ski" for five of the eight years for which Simmons claims substantially exclusive use. At most, Simmons can rely on less than four years of substantially exclusive use. Further, third-party use, described above, indicates that Simmons' use of its mark has not been substantially exclusive.

20. Simmons is not entitled to a presumption of secondary meaning in this case.

21. The court finds that Simmons' mark is a weak mark entitled to little if any-protection. Thus, this factor weighs against finding a likelihood of confusion.

Degree of Similarity

22. While the marks are similar in sight, sound, and meaning, the evidence demonstrates that Simmons almost always uses its mark in combination with its house marks, which significantly lessens the likelihood of confusion. "Indeed, in the case of a high-priced, single-purchase article, there is hardly a likelihood of confusion when the name of the manufacturer if openly displayed on a product." Sunbeam Prods., Inc., 123 F.3d at 259; Beer Nuts II, 805 F.2d at 926 n.5 ("We assume but do not decide that the presence of the Clover Club trademark on the allegedly infringing product can be considered in assessing whether the similarity between marks is confusing.").

23. Further, when a mark is weakly protected to begin with, "minor alterations may effectively negate any confusing similarity." First Sat. Bank, FSB v. First Bank Sys., Inc., 101 F.3d 645, 655 (10th Cir.1996). Because Simmons inserts an additional syllable in its mark in the form of the letter "i," this additional sound leads to differences in both sight and sound between the respective marks.

24. Because the snowmobile skis at issue are expensive, even similar marks may not generate confusion as to the source of the products. See Beer Nuts II, 805 F.2d at 925 ("[Very similar marks may not generate confusion as to the source of the products where the products are . . . relatively expensive.").

25. The court is cognizant that similarities are to be weighed more heavily than differences, Id. at 925.

26. The court finds, however, that the "degree of similarity" factor militates against finding a likelihood of confusion in light of the weak protection afforded this mark, the high cost of the skis, together with Simmons' typical use of its house mark with the Flexi-Ski mark, and the use of an additional sound ("i") by Simmons.

Intent of Bombardier in Adopting the Term

27. The court finds that Simmons has not demonstrated that there was an attempt by Bombardier to capitalize on Simmons' mark. The court has found that the term "Flex Ski" is generic and that Bombardier was not aware of Simmons' use of the Flexi-Ski mark. Further, Simmons has not provided the court with any evidence that its mark had acquired significant meaning or was otherwise established in the marketplace at the time Bombardier began using the term "Flex Ski." Thus, this factor weighs against finding a likelihood of confusion.

The Relation in Use and the Manner of Marketing Between the Goods

28. Simmons has not provided any evidence concerning the relation in use and the manner of marketing between the Simmons Flexi-Ski and Bombardier's Flex Ski. While the skis are both snowmobile skis, there is no evidence regarding whether a Simmons' dual-keeled flexible ski would be used by the same purchasers of a Bombardier single-keeled flexible ski. There is no evidence about whether

the products are marketed in the same manner or whether they are sold side-by-side at the same retailers. The possibility of confusion is greatest when products reach the public by the same retail outlets. Beer Nuts II, 805 F.2d at 926. Thus, because there is no evidence, this factor weighs against finding a likelihood of confusion.

Evidence of Actual Confusion

29. Simmons has presented no evidence of actual confusion. To the contrary, there is evidence that purchasers of aftermarket skis would recognize a difference between the Simmons Flexi-Ski (a dual-keeled ski) and Bombardier's Flex Ski (a single-keeled ski). Moreover, even Mr. Simmons admitted in his deposition that purchasers of aftermarket skis would recognize a difference between the two skis.

30. While the absence of evidence regarding actual confusion does not necessarily support a finding of no likelihood of confusion, parties are more likely to have such evidence when dealing with relatively expensive products. Beer Nuts II, 805 F.2d at 928.

31. Because of the expensive nature of the products at issue and the lack of any evidence of actual confusion, this factor also militates against finding a likelihood of confusion.

Degree of Care

32. When consumers exercise care in making a purchase, it is less likely that they will be confused about the source of the goods. Electronic Design &

Sales Inc. v. Electronic Data Sys. Corp., 954 F.2d 713, 718-19 (Fed. Cir.1992); Heartsprings, Inc.,143 F.3d at 557.

33. Because of the significant cost of both the Simmons and Bombardier skis, and because the evidence demonstrates that typical snowmobile enthusiasts purchase aftermarket skis in order to customize their snowmobile to improve performance or adapt to different snow conditions, these consumers exercise a great deal of care when purchasing such aftermarket skis. Beer Nuts II, 805 F.2d at 926; Sally Beauty Co., Inc. v. BeautyCo, Inc., __ F.3d __ , 2002 WL 2005902 *6 (10th Cir. 2002) ("[Items purchased on impulse are more likely to be confused than expensive items, which are typically chosen carefully.").

34. Purchasers of an aftermarket ski who are attempting to customize their snowmobiles and have a desire to buy a flexible ski would also be likely to have a preference between a single-keeled ski and a dual-keeled ski and would not simply accept any flexible ski that a salesperson handed them.

35. Accordingly, this factor also militates against finding a likelihood of confusion.

Totality of the Circumstances

36. Considering the totality of these interrelated factors, Simmons has not satisfied its burden with respect to demonstrating a likelihood of confusion.

37. In light of Bombardier's generic mark and Simmons' failure to establish a likelihood of confusion,

Simmons has failed to establish a substantial likelihood of success on the merits of its trademark infringement claim, particularly in light of the even higher burden that Simmons must satisfy in this case.

Irreparable Harm

38. Irreparable injury is equally as important as likelihood of success. GTE Corp., v. Williams, 731 F.2d 676, 678 (10th Cir.1984). While "[some cases suggest that a preliminary showing of likelihood of confusion alone is a sufficient showing of irreparable injury to support a preliminary injunction . . . . we do not read those cases as saying that irreparable harm is in insignificant factor in considering motions for preliminary injunctions in trademark cases; rather, they stand for the proposition that infringement alone can constitute irreparable injury and that the movant is not required to show that it lost sales or incurred other damage." Id.

39. Because Simmons has not demonstrated that it is likely to succeed on the merits of its claim, it is not entitled to a presumption of irreparable harm.

40. Simmons has not proffered any evidence about the harm it will suffer beyond what may be presumed to exist if there is a likelihood of confusion. Thus, it has failed to satisfy this requirement for obtaining a preliminary injunction.

41. Moreover, even if Simmons had demonstrated a likelihood of success on the merits, the court finds that Simmons' delay in bringing its trademark infringement claim, along with the absence of any evidence of

irreparable harm, would preclude Simmons from obtaining a preliminary injunction.

42. Simmons has known of Bombardier's use of the term "Flex Ski" for over four years.

43. "Delay in seeking relief undercuts any presumption that infringement alone has caused irreparable harm pendente lite; therefore such delay may justify denial of a preliminary injunction for trademark infringement." Id. at 678; Amoco Oil Co. v. Rainbow Snow, Inc., 809 F.2d 656, 664 (10th Cir.1987); J. Gilson, Trademark Protection and Practice, § 8.07[1] (1984).

Other Preliminary Injunction Factors

44. Based on the courts finding concerning the likelihood of success on the merits and irreparable harm, the court need not address the other requirements for obtaining a preliminary injunction.

Conclusion

45. Because this court has found that Simmons has not demonstrated a likelihood of success on the merits or that it will suffer irreparable harm if the injunction does not issue-particularly under the higher standard applicable in this case, but even under the lower standard typically applied to preliminary injunction motions-Simmons is not entitled to a preliminary injunction concerning its trademark infringement claim.

III. ORDER

Accordingly, for the foregoing reasons and good cause appearing, IT IS HEREBY DERED that Bombardier's Motion for Summary Judgment of Non-Infringement is GANTED, and Simmons' patent infringement claim (Count IV) is DISMISSED with prejudice. Simmons' Motion for Partial Summary Judgment of Infringement is DENIED. Simmons' 56(f) Request is DENIED. Simmons' Motion for Preliminary Injunction is DENIED.

This document has been filed under seal because the motions and related memoranda were all filed under seal. The seal will automatically be lifted on October 2, 2002 unless the parties, prior to that date, jointly inform the court that the documents should remain under seal or if one party files a motion to keep the document under seal.

DATED this 16th day of September, 2002.

BY THE COURT:

DALE A. KIMBALL
United States District Judge

FOOTNOTES

[1] In attempting to dispute this fact, Simmons asserts that this argument applied to only claim 8. Yet, claim 8 is a dependent claim and thereby incorporates all the limitations of claims from which claim 8 directly or indirectly depends. In addition, Simmons also made the same argument in attempting to traverse the section 102 rejection of independent claim 16. Claim 16 recites in part "a front portion having a slight concave bottom;

a middle portion attached to the back of the front portion." No further shape of the middle portion is disclosed. Simmons distinguished the prior art by stating the none of the prior art skis has "a slightly concave bottom in the font portion. The importance of this feature and its relation to a middle portion with a flat bottom are discussed below for claim 8." Moreover, Simmons stated that "the ski of Labelle exhibits a pronounced concave shape throughout its entire length."

[2] However, the examiner stated that "claims 11-14 would be allowable if rewritten . . . to include all of the limitations of the base claim and any intervening claims." Claim 11 recites the limitations of "the bottom of said middle portion of the snowmobile ski is flat to aid flotation on snow." Claims 12-13 depend directly from claim 11 and thereby incorporate the limitations of claim 11.

[3] The court therefore denies Plaintiff's 56(f) request.

[4] Because of this determination, the court declines to address Bombardier's other bases for granting summary judgment.

[5] The court notes that the findings of fact and conclusions of law made by a court in deciding a preliminary injunction motion are not binding at the trial on the merits. University of Texas v. Camenisch, 451 U.S. 390, 395 (1981); City of Chanute v. Williams Natural Gas Co., 955 F.2d 641, 649 (10th Cir.1992), overruled on other grounds by Systemcare, Inc. v. Wang Labs Corp., 117 F.3d 1137 (10th Cir.1997) (recognizing that "the district court is not bound by its

prior factual findings determined in a preliminary injunction hearing.").

[6] The court assumes, without deciding, that the mark is a valid mark.

[7] The mark has not become incontestable under 15 U.S.C. § 1065.

03-1045

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

SIMMONS, INC.,
Plaintiff-Appellant,

v.

BOMBARDIER INC. and BOMBARDIER MOTOR CORPORATION OF AMERICA,
Defendants-Appellees.

September 24, 2003, Decided
September 24, 2003, Filed

OPINION:

ORDER

A combined petition for panel rehearing and for rehearing en banc having been filed by the APPELLEES, and a response thereto having been invited by the court and filed by the APPELLANT, and the petition for rehearing having been referred to the panel that heard the appeal, and thereafter the petition for rehearing en banc and response having been referred to the circuit judges who are in regular active service,

UPON CONSIDERATION THEREOF, it is

ORDERED that the petition for panel rehearing be, and the same hereby is, DENIED and it is further

ORDERED that the petition for rehearing en banc be, and the same hereby is, DENIED.

The mandate of the court will issue on October 1, 2003.

US PAT 5836594
Title: SNOWMOBILE SKI
Issue Date: November 17, 1998 (19981117)
Patent Assignee: Simmons, Inc. (Provident, UT)

United States Patent
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Patent Number: US 5836594
Document Type: Utility
Title: SNOWMOBILE SKI

Issue Date: November 17, 1998 (19981117)
Inventor(s): Simmons, Verlin M. (Providence, UT)
Patent Assignee: Simmons, Inc. (Provident, UT)
Application Number: 213950
Application Date: March 15, 1994 (19940315)
Related: Continuation-in-part of Ser. No. 88,411, July 01, 1993 (19930701), Pat. No. 5,360,220, which is a continuation-in-part of Ser. No. 988,231, December 09, 1992 (19921209), now abandoned.

International Class: [6] B62B-017/00
U.S. Class: 280/028
Field of Search: 280/028; 280/845; 280/608; 280/609

REFERENCES CITED:

U.S. Patent Documents:
3675939 1972/07 Vik 280/028
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Primary Examiner: Camby, R[illegible]hard M.
Attorney/Agent/Firm: Mad[illegible]on & Metcalf

ABSTRACT:

A snowmobile ski having a front portion the bottom of which is slightly concave. On each side of the middle portion of the snowmobile ski there is a downwardly extending longitudinal side portion. At the front of each downwardly extending longitudinal side portion are located a forward-facing horizontal wedge and a forward-facing vertical wedge. At the rear of each downwardly extending longitudinal side portion are placed a rear-facing horizontal wedge and a rear-facing vertical wedge. A flexible loop is attached to, and mounted flush with, the bottom of the front portion of the snowmobile ski. The flexible loop curves in front of, and above, the front portion of the snowmobile ski, before being slidably attached to the top of the front portion of the snowmobile ski. The middle portion of the snowmobile ski is thicker than either the front portion or the rear portion of the snowmobile ski.

Claims: 20
Patent Pages: 7
Drawing Sheets: 2

CROSS-REFERENCE TO RELATED APPLICATION

This is a continuation-in-part of U.S. Pat. application Ser. No. 08/088,411, filed Jul. 1, 1993, now U.S. Pat. No. 5,360,220 which is a continuation-in- part of application Ser. No.

07/988,231 filed Dec. 9, 1992, now abandoned.

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to skis used on snowmobiles and similar vehicles to support such vehicles, to facilitate their movement across snow and ice, and to provide directional guidance for them.

2. Description of the Related Art

Desirable characteristics of a snowmobile ski include the abilities to float on deep snow; to turn efficiently, including smoothly moving in a lateral direction; to move smoothly forward; to be flexible in order to minimize the possibility of the ski's catching on snow, ice, or obstacles; to move smoothly in reverse; to avoid creating fluid dynamic drag in snow; and to be structurally strong.

Prior patents have attempted to achieve these goals in various ways.

To increase flotation some skis have sides which extend

farther downward than does any other portion of the bottom of the ski. These tend to prevent snow being forced outward from the sides of the ski when weight is placed on such ski.

U.S. Pat. No. 905,704 shows a runner for a sled, which it designates a " "shoe," having a central longitudinal depression apparently running its entire length. U.S. Pat. No. 3,734,221 includes a ski with a longitudinally extending central groove that creates a concave shape and appears to extend throughout the length of the ski. U.S. Pat. No. 3,901,525 utilizes a concave ""runner" which lies below a flexible structure and forms the base of the ski over its full length. U. S. Pat. No.

4,116,455 utilizes runners with a triangular cross section that are so large they effectively create downward extending sides of a ski termed a ""shoe"over the entire length of the ski. U.S. Pat. No. 4,161,323, in one embodiment, has a ski with a central protuberance and a runner below it as well as on the sides of the ski, creating two semi-concave surfaces terminated by the side runners; two such skis are combined with the front ski having its protuberance running from near its back end forwardly ""a fair distance" but preferably not to the upward curve of the front end and with the protuberance on the rear ski located near its front end. U.S. Pat. No. 4,225,145 includes an embodiment of a runner for a modified skateboard which has a concave surface at all locations where the bottom of the runner will contact snow over which the skateboard is operated. U.S. Pat. No. 4,413,832 covers a sled worn by a user; the portion worn on the trunk of the user's body has guiding edges which curve down from its sides and ""run the length of the

sled surface". And U.S. Pat. Nos. 5,040,818 and 5,145,201 depict a snowmobile ski possessing a unique double concave bottom over a length that is unstated but, from the description and figures, would seem to cover at least all of the bottom of the ski except, possibly, the extreme front and back portions.

Flotation is also augmented by having a flat bottom surface between the sides over the entire length of a ski, as in the case of the skis in U.S. Pat. Nos. 4,116,455 and the portion of the snow sled from U.S. Pat. No. 4,413,832 that is worn on the user's trunk.

And the upwardly and outwardly tapered side walls of the ski from U.S. Pat. No. 4,116,455 assist flotation during turns, when the ski rolls somewhat to its side.

The efficiency of turning is increased by the flotation during the turn discussed with respect to U.S. Pat. No. 4,116,455 and by those skis discussed above which possess downwardly extending sides. The downwardly extending sides, especially when they do not form part of a uniform curve across the bottom of the ski, keep snow from sliding away to the side as the ski is rolled slightly to create--from the weight of the snowmobile or the user--a horizontal component of force to aid in turning just as does a banked or superelevated curve on a highway.

On ice or hard-packed snow the ski cannot partially roll into the ice or snow; so, turning is primarily accomplished by yawing the ski in the desired direction and thereby creating frictional forces to direct the snowmobile or user in the desired direction. To increase the effectiveness of this process, metal guide rods are

placed longitudinally on the bottom of the ski and, preferably, on the edges since either on a snowmobile or a human skier, the ski tends to roll in a turn and will, therefore, simply lift the guide rod above the snow or ice, as with the ski of U.S. Pat. No. 3,734,221, if the guide rod is not at the edge of the ski. U.S. Pat. No. 4,161,323 includes such guide rods on the sides, as well as in the middle, of the ski.

Of course, smooth movement of a ski laterally facilitates yawing and, therefore, turning of the ski. This can be accomplished through a variety of techniques: having the front end of the skis curved upward as do virtually all skis; maintaining the bottom of the rear of the ski flat, as in U.S. Pat. Nos. 5,040,818 and 5,145,201; and curving the bottom of the rear of the ski upward, as in U.S. Pat. Nos. 5,145,201, 5,040,818, and 3,734,221 as well as in one embodiment of U.S. Pat. No. 4,116,455.

Smooth movement in the reverse direction is facilitated by curving the top and bottom of the rear of the ski upward, as has been done with the skis of the four patents identified at the end of the preceding paragraph, and by rounding the rear corners of the ski, as is the case with the skis of U.S. Pat. Nos. 5,145,201; 5,040,818; and 3,734,221. These same features minimize the creation of fluid dynamic drag in snow.

Finally, the downward-extending sides discussed with respect to flotation also create a stronger structure than does a simply flat ski.

SUMMARY OF THE INVENTION

The present invention utilizes new techniques to achieve the desirable characteristics of a snowmobile ski that have been enumerated above.

Flotation is enhanced by forming the base of the ski so that as it moves across snow, the snow is funneled to the middle portion of the ski. This is accomplished by two techniques. The bottom of the upwardly curved forward portion of the ski is slightly concave. And, near the juncture of the front portion and the middle portion of the ski, the sides edges of the ski begin to extend downward in such a manner that, as viewed from below, on each side of the ski the downwardly extending longitudinal side portion forms a forward-facing horizontal wedge with its apex on the edge of the ski.

Efficient turning is facilitated by limiting the downwardly extending longitudinal side portions of the ski to the middle portion of the ski, unlike the skis of the prior art patents identified above where the downward extensions exist along all or substantially all the length of the skis. Such a limitation reduces resistance to yawing, i.e., laterally turning the ski.

Smooth forward movement is aided by placing, on each side of the ski near the juncture of the front portion and the middle portion of the ski, a forward- facing vertical wedge with its apex on the bottom of the front portion of the ski.

Flexibility is increased by having the front portion of

the ski relatively thin compared to the middle portion and, as a loop for manually moving a snowmobile and displacing obstacles, utilizing the snowmobile ski flexing apparatus of U.S. Pat. No. 5,360,220. This is a flexible loop with its first end attached to the bottom of the front portion of the ski and its second end slidably attached to the top of the ski so that the flexible loop curves in front of and above the snowmobile ski. Unlike the loop of that application, however, the bottom of the front portion has a channel to accommodate the first end of the loop so that when such first end is attached, it is flush with the bottom of the front portion of the ski. This requires increasing the thickness of the ski above the channel. The flexibility of prior art skis is impaired by having both ends of the loop rigidly attached to the ski, as can be seen in U.S. Pat. Nos.

5,145,201; 5,040,818; and 3,734,221 .

Smooth reverse movement is augmented by placing, on each side of the ski near the juncture of the middle portion and the rear portion of the ski, a rear- facing vertical wedge with its apex at the bottom of the rear portion of the ski.

Fluid dynamic drag is reduced by shaping the base of the ski to enhance the smoothness of the flow as snow exits the ski. This is achieved, as the sides of the ski rise near the juncture between the middle portion and the rear portion of the ski, by having the sides rise in such a manner that, as viewed from below, on each side of the ski the rising side forms a rear-facing horizontal wedge with its apex on the edge of the ski.

And structural strength is improved by increasing the thickness at the top of the middle portion of the ski, as compared to the front portion and rear portion of the ski.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a slightly elevated view from the front of the snowmobile ski, to show the slightly concave bottom of the upwardly curved front portion of the ski.

FIG. 2 is a view of the bottom of the snowmobile ski.

FIG. 3 provides a lateral view of the snowmobile ski.

FIG. 4 presents a sectional view looking to the rear of the snowmobile ski from the position designated by line 4--4 in FIG. 3.

FIG. 5 is a view looking forward from behind the snowmobile ski.

DESCRIPTION OF THE PREFERRED EMBODIMENT

The preferred embodiment combines the preceding novel features with the desirable characteristics of prior art skis.

The bottom, designated the front bottom (20), of the front portion (101) of the snowmobile ski is, as shown in FIG. 1, concave, preferably slightly concave. Near the juncture of the front portion (101) and the middle portion (1.02) of the snowmobile ski, the sides of the snowmobile ski begin to extend downward to create

longitudinal side portions (42) in such a manner that, as viewed from below in FIG. 2, on each side of the snowmobile ski the downwardly extending longitudinal side portion (42) has attached to its front end a forward-facing horizontal wedge (103) with its apex on the edge of the snowmobile ski so that the forward-facing horizontal wedge (103) is attached to the front of the downwardly extending longitudinal side portion (42), to the middle portion (102) of the ski, and to the front portion (101) of the ski. These features funnel snow to a channel formed by the bottom of the middle portion (102) of the snowmobile ski to enhance flotation as the snowmobile ski travels across snow.

The snowmobile ski's having a flat middle bottom (40), as depicted in FIG. 4, and rear bottom (60), as portrayed in FIG. 5, also aids flotation on snow, as, by preventing snow from being forced outward from the sides of the snowmobile ski when weight is placed on such ski, do to the downwardly extending longitudinal side portions (42). As suggested above, the middle bottom (40) is substantially planar while the two opposite longitudinal side portions (42) of the ski extend downwardly. The importance lies in that the side portions (42) extend downwardly relative to the center portion of the ski, i.e., the longitudinal center portion.

The downwardly extending longitudinal side portions (42) of the snowmobile are located along only the middle portion (102) of the snowmobile ski, as is evident in FIG. 3. Limiting the downwardly extending longitudinal side portions (42) to the middle portion (102) of the snowmobile ski reduces resistance to yawing, i.e., laterally turning the ski. For this same reason, efficient turning is facilitated by the following

facts the front portion (101) of the snowmobile ski curves upward, as shown in FIG. 1 and FIG. 3; and that the rear bottom (60) is flat until the rear portion (104) of the snowmobile ski curves upward, as depicted in FIG. 3 and FIG. 5.

As the downwardly extending longitudinal side portions (42) descend, the outside wall (105) of each such downwardly extending longitudinal side portion (42) tapers inward, as illustrated in FIG. 4. Such a taper has less of a tendency than would a sharp angle between the downwardly extending longitudinal side portion (42) and the middle bottom (40)--to cut into snow as the snowmobile ski rolls slightly during its turn and, therefore, assists the ski to float during a turn. Moreover, the downwardly extending longitudinal side portions (42) keep snow from sliding away to the side as the ski is rolled slightly for a turn to create--from the weight of the snowmobile and the user-- a horizontal component of force to aid in turning the snowmobile.

Finally, with respect to turning, a metal guide rod (106) is attached, as portrayed in FIG. 2, FIG. 3, FIG. 4, and FIG. 5, to, and runs longitudinally along, the bottom of each of the downwardly extending longitudinal side portions (42) at the edge of the bottom of the downwardly extending longitudinal side portion (42). As indicated above, the guide rod (106) increases the effectiveness of the frictional turning process created by yawing the ski. This process is most applicable to turning on ice or hard-packed snow since when the ski rolls, it cannot have the edge in the direction of the turn roll into the ice or snow. Rather, the ski is rolled onto the edge in the direction of the turn with the other edge elevated above the ice or snow. Thus, unless the guide

rod (106) is at the edge of the ski, no guide rod (106) will contact the ground during the turn.

To facilitate smooth forward movement of the snowmobile ski, on each side of the ski near the juncture of the front portion (101) and the middle portion (102) is located a forward-facing vertical wedge (107) with its apex on the bottom of the front portion (101) approximately at the point where the front portion (101) of the ski begins to curve upward. As can be seen from FIG. 3, the forward-facing vertical wedge (107) is connected to the front of the downwardly extending longitudinal side portion (42) , to the middle portion (102) of the ski, and to the front portion (101) of the ski. A comparison of FIG. 2 with FIG. 3 shows that the forward-facing vertical wedge (107) is also attached to the forward-facing horizontal wedge (103) that is on the same side of the ski as the forward-facing vertical wedge (107).

Flexibility of the ski is increased by making the front portion (101) of the snowmobile ski relatively thin compared to the middle portion (102) and utilizing a flexible loop (108) as the frontal loop that is well known in the art for manually moving a snowmobile and displacing low-lying obstacles encountered during the operation of the snowmobile. The first end of the flexible loop (108) is attached to a channel in the tip of the front bottom (20) of the snowmobile ski so that the bottom of the flexible (108) is flush with the front bottom (20) of the ski, as depicted in FIG. 1. To accommodate the channel in the relatively thin front portion (101) of the snowmobile ski, an upper projection (109) is attached to the top of the tip of the front portion (101) of the ski. The second end of the flexible loop (108)

is slidably attached to the top of the front portion (101) of the snowmobile ski so that the flexible loop (108) curves in front of and above the ski.

Smooth reverse movement of the snowmobile ski is achieved by locating on each side of the ski near the juncture of the middle portion (102) and the rear portion (104) a rear-facing vertical wedge (110) with its apex on the bottom of the rear portion (104) of the ski such that the rear-facing vertical wedge (110) is attached to the rear end of the downwardly extending longitudinal side portion (42), to the middle portion (102) of the ski, and to the rear portion (104) of the ski, as shown in FIG. 3. Such movement is also augmented by the fact that the rear portion (104) of the snowmobile ski curves upward, as seen in FIG. 3 and FIG. 5, and that the corners of the rear portion (104) of the ski, as viewed from below in FIG. 2, are rounded.

Of course, the middle portion (102) of the snowmobile ski is attached to the back of the front portion (101) of the ski; and the rear portion (104) of the ski is attached to the back of the middle portion (102) of the ski.

As mentioned above, fluid dynamic drag is reduced by shaping the base of the ski to enhance the smoothness of the flow as snow exits the ski. Near the juncture between the middle portion (102) of the ski and the rear portion (104) of the ski, the sides of the ski rise in such a manner that, as viewed from below in FIG. 2, on each side of the ski the downwardly extending longitudinal side portion (42) has attached to its back end a rear-facing horizontal wedge (111) with its apex on the edge of the ski so that the rear-facing horizontal wedge (111) is also attached to the middle portion (102) of the ski

and to the rear portion (104) of the ski. A comparison of FIG. 2 and FIG. 3 demonstrates that the rear-facing horizontal wedge (111) is additionally attached to the rear-facing vertical wedge (110) that is on the same side of the ski as the rear-facing horizontal wedge (111).

The previously discussed upward curve of the rear portion (104) of the snowmobile ski, as well as the fact that the corners of the rear portion (104) of the ski are rounded, also contributes to a reduction in fluid dynamic drag.

Structural strength of the snowmobile ski is improved by the downwardly extending longitudinal side portions (42) and by the fact that, as compared to the front portion (101) and rear portion (104) of the ski, the thickness of the snowmobile ski is increased in the middle portion (102), as depicted in FIG. 3 and FIG. 4.

I claim:

1. A snowmobile ski, comprising: a base extending in a longitudinal direction and having a bottom for moving over snow, the base also extending in a lateral direction between a first edge and a second edge thereof and having a top adapted to be connected to a snowmobile; a first side portion extending in the longitudinal direction and extending downward from the first edge; a second side portion extending in the longitudinal direction and extending downward from the second edge; a first guide rod disposed on a bottom of the first side portion; and a second guide rod disposed on a bottom of the second side portion.

2. A snowmobile ski as recited in claim 1, wherein the bottom and the first and second side portions are adapted to provide a channel for the passage of snow, bounded by the bottom and the first and second side portions.

3. A snowmobile ski as recited in claims 2, wherein the first and second side portions are adapted to funnel snow into the channel.

4. A snowmobile ski as recited in claim 2, wherein the first side portion has a forward apex at the first edge and the second side portion has a forward apex at the second edge, and wherein each of the first and second side portions increases in width laterally from the respective forward apexes rearward, so as to funnel snow into the channel.

5. A snowmobile ski as recited in claim 2, wherein the first side portion has a rear apex at the first edge and the second side portion has a rear apex at the second edge, and wherein each of the first and second side portions decreases in width laterally toward the respective rear apexes so as to decrease fluid dynamic drag.

6. A snowmobile ski as recited in claim 2, wherein the base further comprises an upturned front portion having a front portion bottom, and further comprising a concavity in the front portion bottom, such that snow is funneled past the front portion into the channel when the snowmobile ski is in use.

7. A snowmobile ski as recited in claim 1, wherein the base is flexible and substantially flat laterally across

the top, and wherein the base transitions between a front portion, a rear portion, and an intervening middle portion and has a vertical thickness that increases from the front portion to the middle portion, such that the flexibility of the base is greater at the front portion than at the middle portion.

8. A snowmobile ski as recited in claim 7, wherein the first and second side portions extend exclusively along the middle portion.

9. A snowmobile ski as recited in claim 1, wherein the first and second side portions have a front and a rear, taper downward from the base at the front, and taper upward toward the base at the rear.

10. A snowmobile ski, comprising: a base extending in a longitudinal direction and having a bottom for moving over snow, the base also extending in a lateral direction between a first edge and a second edge thereof and having a top adapted to be connected to a snowmobile; a first side portion extending downward from the first edge and extending in the longitudinal direction; a second side portion extending downward from the second edge and extending in the longitudinal direction, the first and second side portions having a front and a rear and tapering downward from the base at the front and tapering upward toward the base at the rear; a first guide rod disposed on a bottom of the first side portion; anda second guide rod disposed on a bottom of the second side portion.

11. A snowmobile ski as recited in claim 10, wherein the bottom and the first and second side portions are adapted to provide a channel for the passage of snow

bounded by the bottom and the first and second side portions.

12. A snowmobile ski as recited in claim 7, wherein the base further comprises an upturned front portion having a front portion bottom, and further comprising a concavity in the front portion bottom, such that snow is funneled past the front portion into the channel when the snowmobile ski is in use.

13. A snowmobile ski as recited in claim 12, wherein the first side portion has a forward apex at the first edge and the second side portion has a forward apex at the second edge, and wherein each of the first and second side portions increases in width laterally from the respective forward apexes rearward, so as to funnel snow into the channel.

14. A snowmobile ski as recited in claim 13, wherein the first side portion has a rear apex at the first edge and the second side portion has a rear apex at the second edge, and wherein each of the first and second side portions decreases in width laterally toward the respective rear apexes so as to decrease fluid dynamic drag.

15. A snowmobile ski as recited in claim 14, wherein the base is flexible and substantially flat laterally across the top, and wherein the base transitions between a front portion, a rear portion, and an intervening middle portion and has a vertical thickness that increases from the front portion to the middle portion, such that the flexibility of the base is greater at the front portion than at the middle portion.

16. A snowmobile ski, comprising :a base extending in a longitudinal direction and having a bottom for moving over snow, the base extending in a lateral direction between a first edge and a second edge thereof and having a top adapted to connect to a snowmobile; a first side portion extending in the longitudinal direction and extending downward from the first edge; a second side portion extending in the longitudinal direction and extending downward from the second edge; a first guide rod disposed to extend along a bottom of the first side portion; a second guide rod disposed to extend along a bottom of the second side portion; and wherein the bottom and the first and second side portions are adapted to provide a channel for the passage of snow bounded by the bottom and the first and second side portions; and wherein the first side portion has a forward apex at the first edge and the second side portion has a forward apex at the second edge, and wherein each of the first and second side portions increases in width laterally from the respective forward apexes rearward, so as to funnel snow into the channel.

17. A snowmobile ski as recited in claims 16, wherein the base further comprises an upturned front portion having a front portion bottom, and further comprising a concavity in the front portion bottom, such that snow is funneled past the front portion into the channel when the snowmobile ski is in use.

18. A snowmobile ski as recited in claim 17, wherein the base is flexible and substantially flat laterally across the top, and wherein the base transitions between a front portion, a rear portion, and an intervening middle portion and has a vertical thickness that increases from the front portion to the middle portion, such that the

flexibility of the base is greater at the front portion than at the middle portion.

19. A snowmobile ski as recited in claim 18, wherein the first and second side portions extend exclusively along the middle portion.

20. A snowmobile ski as recited in claim 19, wherein the first and second side portions have a front and a rear, taper downward from the base at the front, and taper upward toward the base at the rear.

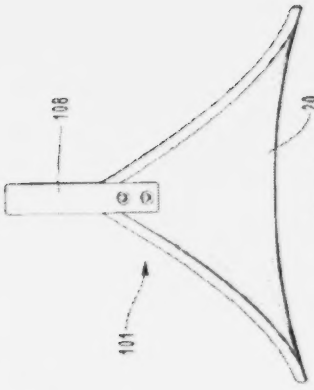

FIG. 1

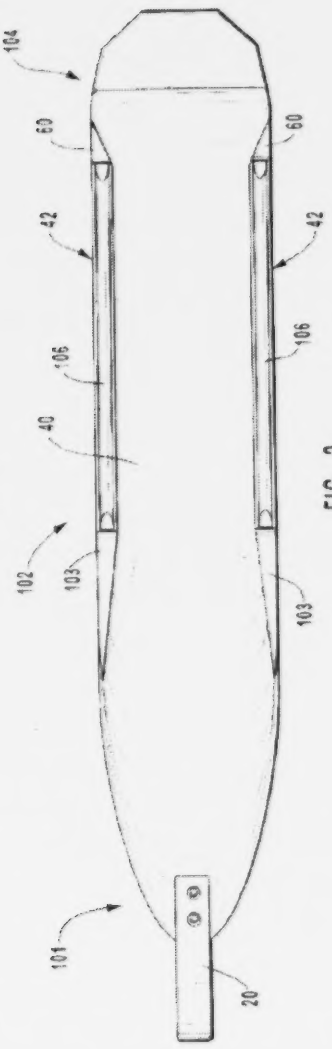

FIG. 2

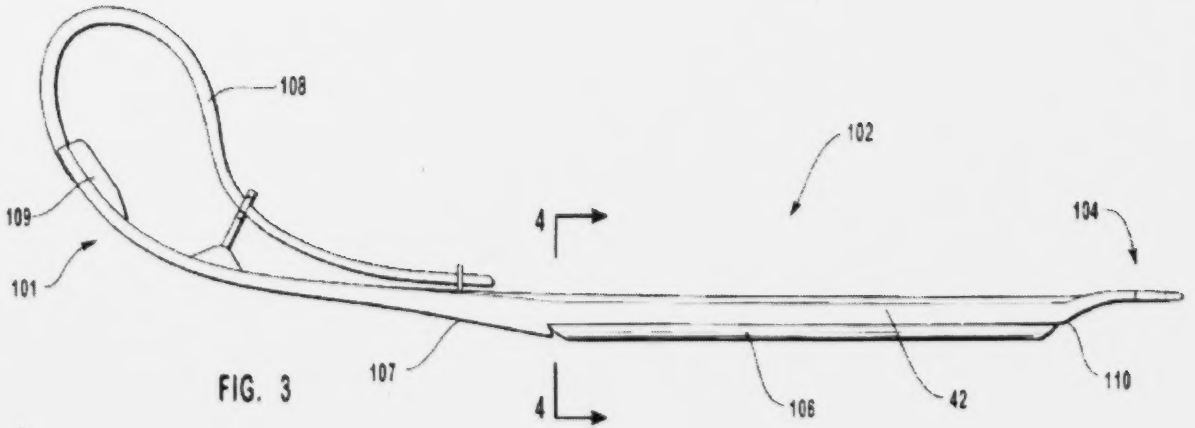

FIG. 3

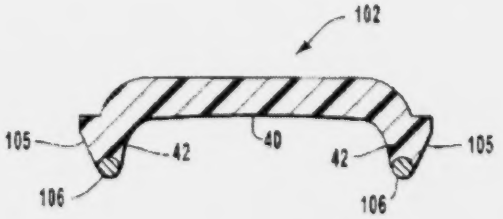

FIG. 4

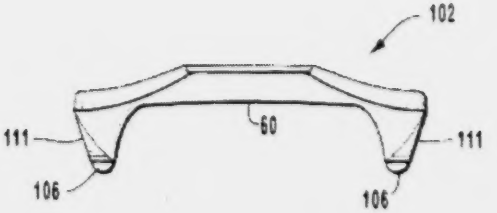

FIG. 5

UNITED STATES PATENT [19]
Labelle
[11] 3,817,544
[45] June 18, 1974
[54] SKI FOR SNOWMOBILE
[76] Inventor: Richard L. Labelle, 405 Wood St., Sherbrook, , Quebec, Canada
[22] Filed: Sept. 20, 1972
[21] Appl. No.: 290,704
[63] Continuation-in-part of Ser. No. 150,155, June 4, 1971, Pat. No. 3,734,221.
[52] U.S. Cl.....280/28, 180/5 R, 280/11.13 E, 280/11.13 S
[51] Int. Cl.....B62m 27/02
[58] Field of Search.....280/28, 11.13 S, 11.13 E; 180/5 R

[56] References Cited
UNITED STATES PATENTS

905,704	12/1908	Johnson	280/28 X
2,071,220	2/1937	Schniebs	280/11.13 S
2,404,402	7/1946	Porter	280/28
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3,726,354	4/1973	LaPlante	180/5 R
3,734,221	5/1973	Labelle	180/5 R

FOREIGN PATENTS OR APPLICATIONS

181,564	7/1936	Switzerland	280/11.13 E
612,849	5/1935	Germany	280/11.13 E

Primary Examiner – Leo Friaglia

* * *

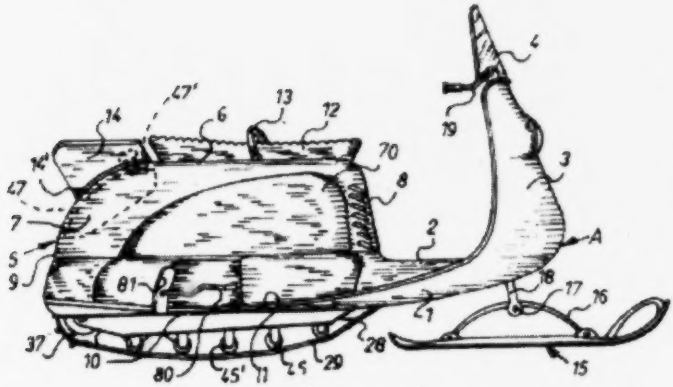


FIG.1

FIG.2

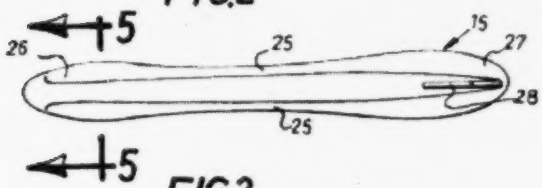


FIG.3

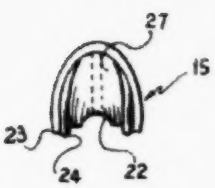


FIG.4

FIG.5

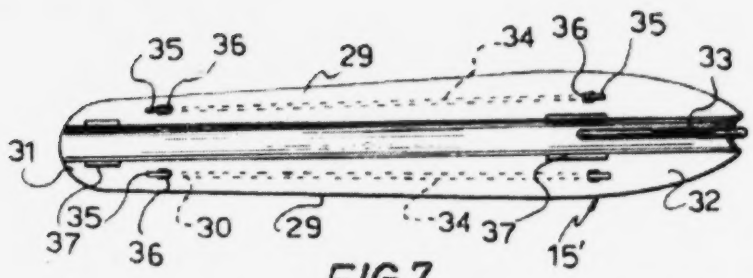


FIG.7

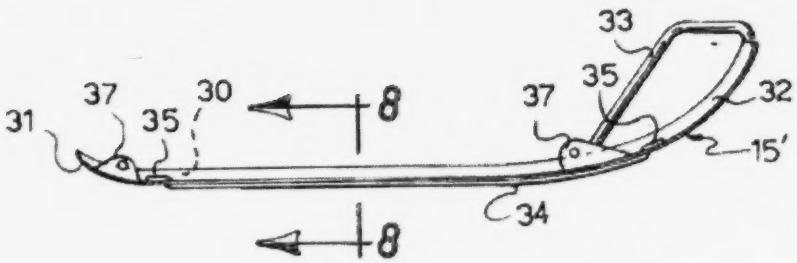


FIG.6

FIG.8

U.S. PATENT APPLICATION			
Serial Number 07/988,231	Filing Date 12/09/92	Class 280	Group Art Unit 3104

APPLICANT
Verlin M. Simmons, Providence, UT

CONTINUING DATA
Verified

FOREIGN APPLICATIONS
Verified

IF REQUIRED, FOREIGN FILING LICENSE GRANTED 012/30/92 ** SMALL ENTITIY**

State or Country UT	Sheets Drawing 2	Total Claims 17
Independent Claims 3	Filing Fee Received $355.00	Attorney Docket No. 105.002

Address

ALAN L. EDWARDS
314 WEST 1140 NORTH
LOGAN, UT 84321

Title

SNOWMOBILE SKI

* * *

CLAIMS

1. A snowmobile ski comprising:

an elongate substantially planar member with first and second ends, a middle portion between the first and second ends, first and second lengthwise sides, and upper and lower surfaces;

an elongate substantially concave surface disposed longitudinally on the lower surface of the elongate member and whose width extends substantially to the first and second lengthwise sides.

2. The snowmobile ski of claim 1 wherein the length of the substantially concave surface extends over substantially the entire length of the elongate member.

3. The snowmobile ski of claim 1 wherein the substantially concave surface is disposed on the middle portion of the elongate member.

4. The snowmobile ski of claim 1 wherein the substantially concave surface is composed of a substantially flat longitudinal center and two longitudinal sides extending out and down from the longitudinal center.

5. The snowmobile ski of claim 4 wherein the longitudinal sides extend angularly from the longitudinal center.

6. The snowmobile ski of claim 4 wherein the longitudinal sides curve from the longitudinal center.

7. The snowmobile ski of claim 1 further comprising. first and second elongate wear bars disposed on the first and second lengthwise sides of the elongate member.

8. The snowmobile ski of claim 7 wherein the first and second wear bars substantially coincide in length and longitudinal locatic ı to the substantially concave surface.

9. The snowmobile ski of claim 7 wherein the first and second wear bars extend over substantially the entire length of the elongate member.

10. The snowmobile ski of claim 7 wherein the first and second wear bars are partially imbedded in the material of the elongate member such that the substantially concave surface continues in concavity to and including the wear bars.

11. The snowmobile ski of claim 7 further comprising grooves disposed longitudinally along the first and second lengthwise sides of the elongate member into which the first and second wear bars are seated, and wherein the wear bars are substantially cylindrical.

12. A snowmobile ski comprising:

an elongate substantially planar member with first and second ends, a middle portion between the first and second ends, first and second lengthwise sides, and upper and lower surfaces;
first and second elongate wear bars disposed longitudinally along the first and second lengthwise sides.

13. The snowmobile ski of claim 12 wherein the first and second wear bars extend over substantially the entire length of the elongate member.

14. The snowmobile ski of claim 12 wherein the first and second wear bars extend over substantially the middle portion of the elongate member.

15. The snowmobile ski of claim 12 wherein the first and second wear bars are partially recessed into the elongate member.

16. The snowmobile ski of claim 12 further comprising a substantially concave surface disposed on the lower surface of the elongate member, whose width is substantially the same as the width of the elongate member and whose length extends over a portion of the length of the elongate member.

17. A snowmobile ski comprising:

an elongate substantially planar member with first and second ends, a middle portion between the first and second ends, first and second longitudinal sides disposed at either extreme of the width of the elongate member, a longitudinal center disposed between the first and second longitudinal sides, and upper and lower surfaces;

wherein the longitudinal sides are disposed at least partially below the longitudinal center.

* * *

As Originally Filed

FIG. 1

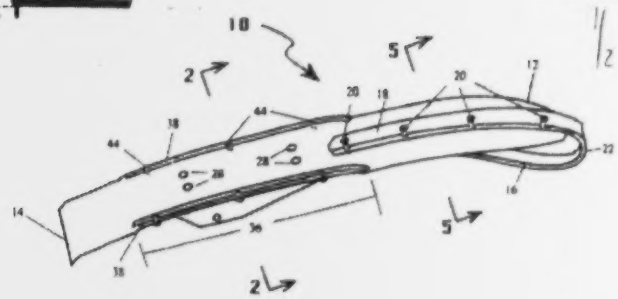


FIG. 2

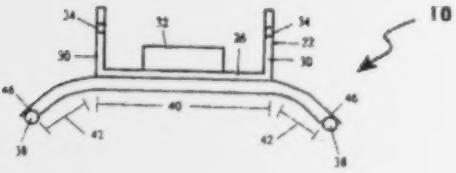


FIG. 3

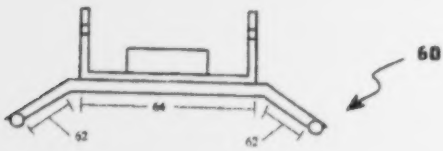
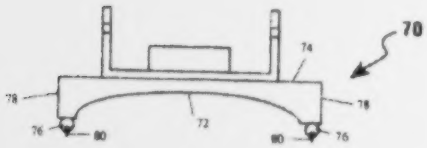


FIG. 4



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

☒ This application has been examined

A shortened statory period for response to this action is set to expire _3_ month(s), _____ days from the date of this letter. Failure to respond within the period for resopnse will cause the application to become abandoned. 35 U.S.C. 133

Part 1

THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. ☒ Notice of References Cited by Examiner, PTO-892.

2. ☒ Notice of Draftman's Drawing Review, PTO-948.

Part 2

SUMMARY OF ACTION

1. ☒ Claims 1-17 are pending in this application.

4. ☒ Claims 1-17 are rejected.

* * *

4. Claims 1-3, and 7-17 are rejected under 35 U.S.C. § 102(b) as being anticipated by Labelle.

Labelle discloses a snowmobile ski comprising; an elongate planar member 15 having an elongate substantially concave 22 surface disposed on the lower surface of the member and whose width extends "substantially" to the first and second lengthwise sides, the concave surface extending over substantially the entire length of the member and disposed on the middle portion, the ski having first and second elongate wear bars 24 disposed on the first and second sides, the wear bars extending over "substantially" the entire length of the member and disposed over a middle portion 25 and the wear bars being cyclindrical and imbedded in grooves 23 on the lengthwise sides.

* * *

UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ADDRESS: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

Serial Number 07/388,231	Filing Date 12/09/92	First Name Appl. Edwards	Art Unit 3106	Attorney Docket No ****
Examiner		Paper Number 3		

ALAN L. EDWARDS
314 WEST 1140 NORTH
LOGAN, UT 84321

NOTICE OF ABANDONMENT

This application is abandoned in view of:

1. ☒ Applicant's failure to respond to the Office letter, mailed 9/16/93.

UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

Serial Number 08/213,950	Filing Date 03/15/1994	Class 280	Group Art Unit 3611	Attorney Docket No. N5840
APPLICANTS Verlin M. Simmons, Providence, UT CONTINUING DATA This application is a clip of 08/088,411 07/01/1993 PAT 5,360,220 Which is a cip of 07/988,231 12/09/1992 ABN FOREIGN APPLICATION IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** SMALL ENTITIY** **04/06/1994				
State or Country UT	Sheets Drawing 5	Total Claims 19	Independent Claims 3	
ADDRESS Brian C. Kunzler 10 West 100 South, Suite 425 Salt Lake City, UT 84101				
TITLE – SNOWMOBILE SKI				

* * *

4. The snowmobile ski as recited in claim 1, further comprising:

on each side of the snowmobile ski, a forwardfacing vertical wedge, with its apex on the bottom of the front portion of the ski, to enhance smooth forward movement of the snowmobile ski, which forwardfacing vertical wedge is attached to the front of said downwardly extending longitudinal side portion, to said middle portion of the snowmobile ski, and to said front portion of the snowmobile ski; and

on each side of the snowmobile ski, a rear-facing vertical wedge, with its apex on the bottom of the rear portion of the ski, to achieve smooth reverse movement of the snowmobile ski, which rear-facing vertical wedge is attached to the back of said downwardly extending longitudinal side portion, to said middle portion of the snowmobile ski, and to said rear portion of the snowmobile ski.

* * *

6. The snowmobile ski as recited in claim 5, further comprising:

a flexible loop, one end of which is attached to and mounted flush with the bottom of the front portion of the ski and the other end of which flexible loop is slidably attached to the top of the front portion of the ski so that the flexible loop curves in front of and above the snowmobile ski.

7. The snowmobile ski as recited in claim 6, further comprising:

on each side of the snowmobile ski, a forwardfacing horizontal wedge with an apex on the edge of the snowmobile ski so that snow will be funnelled under said middle portion as the snowmobile ski travels across snow, which forward-facing horizontal wedge is attached to the front of said downwardly extending longitudinal side portion, to said middle portion of the snowmobile ski, and to said front portion of the snowmobile ski;

on each side of the snowmobile ski, a rear-facing an horizontal wedge, with its apex on the edge of the ski, to enhance the smoothness of the flow as snow exits the ski, which rear-facing horizontal wedge is attached to the back of said downwardly extending longitudinal side portion, to said middle portion of the snowmobile ski and to said rear portion of the snowmobile ski;

on each side of the snowmobile ski, a forwardfacing vertical wedge, with its an apex on the bottom of the front portion of the ski, to enhance smooth forward movement of the snowmobile ski, which forwardfacing vertical wedge is attached to the front of said downwardly extending longitudinal side portion, to said middle portion of the snowmobile ski, to said front portion of the snowmobile ski, and to the forward-facing horizontal wedge that is on the same side of the ski as the forward-facing vertical wedge; and

on each side of the snowmobile ski, a rear facing vertical wedge, with its, apex on the bottom of the rear portion of the ski, to achieve smooth reverse movement

of the snowmobile ski, which rear-facing vertical wedge is attached to the back of said downwardly extending longitudinal side portion, to said middle portion of the snowmobile ski, to said rear portion of the snowmobile ski, and to the rearfacing horizontal wedge that is on the same side of the ski as the rear-facing vertical wedge.

8. The snowmobile ski as recited in claim 7, wherein:

the bottom of said front portion of the snowmobile ski is slightly concave.

* * *

10. The snowmobile ski as recited in claim 7, wherein:

the bottom of said middle portion of the snowmobile ski is flat to aid flotation on snow;

the bottom of said rear portion of the snowmobile ski is flat to aid flotation on snow;

said front portion of the snowmobile ski curves upward;

the outside wall of said downwardly extending longitudinal side portion tapers inward as said downwardly extending longitudinal side portion descends, in order to aid with flotation on snow as the ski rolls during a turn;

said rear portion of the snowmobile ski curves upward to reduce lateral resistance to turning and to decrease fluid dynamic drag; and the corners of said rear portion of the snowmobile ski are rounded to assist smooth rear

movement of the ski and to decrease fluid dynamic drag.

11. The snowmobile ski as recited in claim 10, wherein:

the bottom of said front portion of the snowmobile ski is slightly concave.

12. The snowmobile ski as recited in claim 11, further comprising:

a metal guide rod attached to, and running longitudinally along, the bottom of said downwardly extending longitudinal side portion at the edge of the bottom of said downwardly extending longitudinal side portion, in order to facilitate turning, especially on ice or hard-packed snow.

* * *

14. The snowmobile ski as recited in claim 13, further comprising:

a metal guide rod attached to, and running longitudinally along, the bottom of said downwardly extending longitud, a side portion at the edge of the bottom of said downwardly extending longitudinal side portion, in order to facilitate turning, especially on-ice or hard-packed snow.

* * *

16. A snowmobile ski which comprises:

a front portion having a slightly concave bottom;

a middle portion attached to the back of the front portion; and

a rear portion attached to the back of the middle portion.

* * *

UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

☒ This application has been examined

A shortened statory period for response to this action is set to expire 3 month(s), _____ days from the date of this letter. Failure to respond within the period for resopnse will cause the application to become abandoned. 35 U.S.C. 133

Part 1

THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. ☒ Notice of References Cited by Examiner, PTO-892.

2. ☒ Notice of Draftman's Drawing Review, PTO-948.

5. ☒ Information on How to Effect Drawing Changes.

Part 2

SUMMARY OF ACTION

1. ☒ Claims 1-19 are pending in this application.

4. ☒ Claims 1-19 are rejected.

7. ☒ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.

* * *

* * *

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this office action:

A person shall be entitled to a patent unless - -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 5, 16 and 19 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Labelle.

* * *

10. Claims 8-9 are rejected under 35 U.S.C. § 103 as being unpatentable over Vik as modified by Simmons as applied to claim 7 above, and further in view of Labelle.

The combination of Vik as modified by Simmons shows all elements, with the exception of the front concave portion.

Labelle (figure 4) teaches the known construction of a snowmobile ski having a front with a concave shape.

Based on the teachings of Labelle, it would have been obvious to one of ordinary skill in the art to modify the

ski of the combination of Vik as modified by Simmons to have a front concave construction to funnel the snow for greater control.

* * *

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

AMENDMENT

Applicant: Verlin M. Simmons
Serial No.: 08/213,950
Filed: 03/15/94
For: Snowmobile Ski
Art Unit: 3106
Group No.: 3100
Attorney Docket No.: N5840

THE COMMISSIONER OF PATENTS AND TRADEMARKS
WASHINGTON, D.C. 20231

SIR:

This paper is presented in response to the office action mailed on May 17, 1995.

Please, amend the above-entitled application as follows:

IN THE SPECIFICATION

On page 8 in line 7, delete "Application".

On page 8 in line 8, delete "08/088,411" and insert - - 5,360,220 - - in place thereof.

On page 12 in line 16, delete "by the facts that" and insert - - by the following facts: - - in place thereof.

* * *

The Examiner stated:

5. Claims 1, 5, 16 and 19 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Labelle.

Labelle (figures 2 and 4) shows all element, as broadly set forth.

* * *

With respect to claim 16, neither Labelle, Nakasaki, nor Vik states that its ski has a slightly concave bottom in the front portion. The importance of this feature and its relation to a middle portion with a flat bottom are discussed below for claim 8. Vik does not either describe or show a bottom of the front portion of the ski which is slightly concave. This is also true for Nagasaki. In fact, the bottom of the Vik ski is convex with downwardly extending longitudinal side portions. The bottom of the Nagasaki ski is not described but, from the drawings, appears to be flat throughout its entire length. And the ski of Labelle exhibits a pronounced concave shape throughout its entire length. Applicant, therefore, respectfully requests the Examiner to reconsider his rejection of claim 16 and to allow claim 16.

* * *

The Examiner now asserts:

Claims 8-9 are rejected under 35 U.S.C. § 103 as being unpatentable over Vik as modified by Simmons as applied to claim 7 above, and further in view of Labelle.

The combination of Vik as modified by Simmons shows all elements, with the exception of the front concave portion.
Labelle (figure 4) teaches the known construction of a snowmobile ski having a front with a concave shape.

Based on the teachings of Labelle, it would have been obvious to one of ordinary skill in the art to modify the ski of the combination of Vik as modified by Simmons to have a front concave construction to funnel the snow for greater control.

Concerning claim 8, once again it is necessary to consider the propriety of citing Simmons patent no. 5,360,220 against the present application. Yet, neither Simmons patent no. 5,360,220 nor Vik describe or show a bottom of the front portion of a ski which is slightly concave. In fact, the bottom of the Vik ski is convex with downwardly extending longitudinal side portions. The bottom of the ski of Labelle, moreover, exhibits a pronounced concave shape throughout its entire length; it does not have a front portion with a slightly concave bottom. As described in line 23 on page 11 through line 2 on page 12 of the present application, "The snowmobile ski's having a flat middle bottom (40), as depicted in Figure 4, and rear bottom (60), as portrayed in Figure 5, also aids flotation on snow . . . ." And, as discussed in line 5 through line 22 on page 11 of the present application, the slightly concave bottom of the front portion assists in funneling snow to the middle portion of the snowmobile ski. Applicant, therefore,

respectfully requests the Examiner to reconsider his rejection of claim 8 and to allow claim 8.

* * *

UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

Date mailed 4/12/96

☒ Responsive to communication filed on Nov. 17, 1995.

☒ This action is made final.

A shortened statory period for response to this action is set to expire 3 month(s), _____ days from the date of this letter. Failure to respond within the period for resopnse will cause the application to become abandoned. 35 U.S.C. 133

Part 2

SUMMARY OF ACTION

1. ☒ Claims 2-3, 5-9, 11-14 and 16-19 are pending in this application.

2. ☒ Claims 1, 4, 10 and 15 have been cancelled.

4. ☒ Claims 2-3, 5-9, 11-14 and 16-19 are rejected.

7. ☒ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.

* * *

* * *

Claim Rejections - 35 USC § 142

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless - -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

* * *

6. Claims 5, 16 and 19 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Labelle.

* * *

10. Claims 8-9 are rejected under 35 U.S.C. § 103 as being unpatentable over Vik as modified by Simmons as applied to claim 7 above, and further in view of Labelle.

The combination of Vik as modified by Simmons shows all elements, with the exception of the bottom of the front portion having a (central) concave portion.

Labelle teaches the old and well-known construction of a snowmobile ski having a (central) concave about the

longitudinal extent thereof (see figures 4, 5 and 8 for instance).

Based on the teachings of Labelle, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the ski shown by the combination of Vik as modified by Simmons to include (at least) concave front portion to funnel snow for greater control in steering.

* * *

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Verlin M. Simmons
Serial No.: 08/213,950
Filed: 03/15/94
For: Snowmobile Ski
Art Unit: 3106
Group No.: 3100
Examiner: Brian L. Johnson
Attorney Docket No.: N5840

Commissioner of Patents and Trademarks
Washington, D.C. 20231
ATTENTION: Board of Patent Appeals and Interferences

APPELLANT'S BRIEF (37 CFR 1.192)

This brief is in furtherance of the Notice of Appeal filed in this case on October 10, 1996.

The fees required under § 1.17(f) and any required petition for extension of time for filing this brief and fees therefor are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

This brief is transmitted in triplicate (37 CFR 1.192(a)).

* * *

The third of the novel features is the combined flat middle bottom (40) and flat rear bottom (60) of the Snowmobile Ski. The Application continues, on lines 23 through 25 of page 11:

The snowmobile ski's having a flat middle bottom (40), as depicted in Figure 4, and rear bottom (60), as portrayed in Figure 5, also aids flotation on snow . . . .

* * *

As observed above, the specification notes that the flat middle bottom (40), as depicted in Figure 4, and rear bottom (60), as portrayed in Figure 5, also aids flotation on snow. Should this not be incorporated into claim 16 by the requisite consideration of the specification in the interpretation of claims and should the Board believe that claim 16 would be patentable if the function and the flatness of the middle bottom (40) and of the rear bottom (60) were explicitly included in claim 16, Appellant would be pleased to comply with a suggestion of the Board for such inclusion.

* * *

The Examiner has further declared:

6. Claims 5,16 and 19 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Labelle.

* * *

Claim 16 is, as discussed above, patentable because it includes the novel feature of the slightly concave shape of the front portion (101) of the Snowmobile Ski. The ski of Labelle exhibits a pronounced concave shape throughout its entire length.

And, as mentioned above, the specification notes that the flat middle bottom (40), as depicted in Figure 4, and rear bottom (60), as portrayed in Figure 5, also aids flotation on snow. Should this not be incorporated into claim 16 by the requisite consideration of the specification in the interpretation of claims and should the Board believe that claim 16 would be patentable if the function and the flatness of the middle bottom (40) and of the rear bottom (60) were explicitly included in claim 16, Appellant would be pleased to comply with a suggestion of the Board for such inclusion.

* * *

The Examiner's final rejection provides:

10. Claims 8-9 are rejected under 35 U.S.C. § 143 as being unpatentable over Vik as modified by Simmons as applied to claim 7 above, and further in view of Labelle.

The combination of Vik as modified by Simmons shows all elements, with the exception of the bottom of the front portion having a (central) concave portion.

Labelle teaches the old and well-known construction of a snowmobile ski having a (central) concave [sic] about the longitudinal extent thereof (see figures 4, 5 and 8 for instance).

Based on the teachings of Labelle, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the ski shown by the combination of Vik as modified by Simmons to include (at least) concave front portion to funnel snow for greater control in steering.

* * *

The bottom of the ski of Labelle, moreover, exhibits a pronounced concave shape throughout its entire length; it does not have a front portion with a slightly concave bottom. As described in line 23 on page 11 through line 2 on page 12 of the present application, "The snowmobile ski's having a flat middle bottom (40), as depicted in Figure 4, and rear bottom (60), as portrayed in Figure 5, also aids flotation on snow . . . . "And, as discussed in line 5 through line 22 on page 11 of the present application, the slightly concave bottom of the front portion assists in funneling snow to the middle portion of the snowmobile ski.

Still, as stated with respect to claim 16, should the Board believe that claim 8 would be patentable if the function and the flatness of the middle bottom (40) and of the rear bottom (60) were explicitly included in claim 8, Appellant would be pleased to comply with a suggestion of the Board for such inclusion.

* * *

UNITED STATES DEPARTMENT OF
COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 08/213,950
Filing Date: 03/15/94
Appellant(s): Simmons

Thompson E. Fehr
For Appellant

EXAMINER'S ANSWER

This is in response to appellant's brief on appeal filed March 10, 1997.

* * *

3. Claims 5, 16 and 19 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Labelle.

Note the concave front, rear and middle portions of the ski (figure 2) as well as the front portion being "relatively thin" in comparison to the middle portion (as in side view). Note downwardly extending longitudinal side portions (24) attached at least to the middle portion of the ski, provide an increase in the middle portion of the ski (figure 2), as broadly recited, and inherently increase the structural strength of the ski.

* * *

Re claims 16-18 and Appellant's remarks, please note section (11) subparagraph (2) above for the discussion of the "slightly , concave" bottom portion of the ski shown by Vik.

With respect to claims 5, 16, 19 and the reference to Labelle, please note the claim recitation is not limiting to an interpretation of wedge members or rods (24), shown by Labelle in figures 2 and 4-5, as part of the ski (15) having a front portion being "relatively thin" in comparison to the middle portion (refer to figure 2 of Labelle for tapering or thinning rods 24). Labelle further clearly shows the ski having a front portion of "slightly concave" shape and again, the claim recitation does not prohibit additional portions of the ski from including such concavity, as argued.

* * *

UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ADDRESS: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

Serial Number 08/213,950	Filing Date 03/15/1994	First Name Appl. Simmons	Art Unit 3611	Attorney Docket No N5840
Examiner JOHNSON, B		Paper Number 17		

Brian C. Kunzler
Madison & Metcalf
950 Wells Fargo Plaza
170 South Main Street
Salt Lake City, UT 94101

EXAMINER INTERVIEW SUMMARY RECORD

All participants (applicant, applicant's representative, PTO personnel):

(1) Brian Johnson
(2) Brian Kunzler

Date of interview May 11,1998

Type: ☒ Telephonic

Exhibit shown or demonstration conducted:
☒ No

Agreement
☒ Was not reached

Claims discussed: proposed cls. 20-39

Identification of art discussed: prior art of record

Description of the general nature of what was agreed to if an agreement was reached, or any other comments:

Examiner indicated that audit filed Nov. 3, 1997 would be entered and is sufficient to overcome the rejection under 35 U.S.C. 112 (1st) outstanding. However, the proposed audit received March 11, 1998 would not be entered as it raised new issues / considerations and did not define over the prior art. Note, the continuing status has been updated in the file as needed and consistent with appellant's request.

☒ It is not necessary for applicant to provide a separate record of the substance of the interview.

Brian Johnson
Examiner's Signature

OFFICE ACTION SUMMARY

A SHORTENED STATORY PERIOD FOR RESPONSE IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

Statues

☒ Responsive to communication(s) filed on 6/2/**.

Disposition of Claims

☒ Claim(s) 2, 3, 5-9, 11-14 and 16-19 is/are pending in the application.

☒ Claim(s) 11-14 is/are allowed.

☒ Claim(s) 2, 3, 5 and 16-19 is/are rejected.

☒ Claim(s) 6-9 is/are objected to.

* * *

4. Claims 5,16 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Labelle.

Note the concave front, rear and middle portions of the ski (figure 2) as well as the front portion being "relatively thin" in comparison to the middle portion (as in side view). Note downwardly extending longitudinal side portions (24) attached at least to the middle portion of the ski, provide an increase in the middle portion of the ski (figure 2), as broadly recited, and inherently increase the structural strength of the ski.

* * *

PATENT APPLICATION
Docket No.: 2520.2.2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant Verlin M. Simmons
Serial No.: 08/213/950
Filed: March 15, 1994
For: Snowmobile Ski
Examiner: B. Johnson
Art Unit 3111

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D. C. 20231

Sir:

In response to the Examiner's answer, filed March 10, 1997 and to an Examiner's telephone interview graciously granted on March 5, 1998, the Applicant submits the following amendment and response.

Pursuant to 37 CYR 1.111, please amend the above-identified patent application as follows:

IN THE CLAIMS

Please cancel the existing claims, 2-3; 5-9; and 16-19. Please add the following new claims:

20. A snowmobile ski, comprising:

a base extending in a longitudinal direction and having a bottom for moving over snow, the base also extending in a lateral direction between a first edge and a second edge thereof and having a top adapted to be connected to a snowmobile;

a first side portion extending in the longitudinal direction and extending downward from the first edge;

a second side portion extending in the longitudinal direction and extending downward from the second edge;

a first guide rod disposed on a bottom of the first side portion; and

a second guide rod disposed on a bottom of the second side portion.

21. A snowmobile ski as recited in Claim 1; wherein the bottom and the first and second side portions are adapted to provide a channel for the passage of snow, bounded by the bottom and the first and second side portions.

22. A snowmobile ski as recited in Claim 2, wherein the first and second side portions are adapted to funnel snow into the channel.

* * *

REMARKS

Initially, the Applicant would like to thank the Examiner for the telephone interview of March 5th,

1998. In that interview, amendments to the claims were discussed to overcome the prior art of record. Further amendments were added to overcome concerns expressed by the Examiner in a telephone interview of May 1998.

* * *

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March 11, 1998

FACSIMILE COVER SHEET

TO: Examiner Brian Johnson, Art Group 3100

FROM: Brian C. Kunzler

PAGES TO FOLLOW: 16

FAX NUMBER CALLED: (70) 305 7687

MESSAGE: Enclosed please find a proposed amendment as discussed in our conversation of March 5, 1998.

* * *